Madurai Kamaraj University

(University with Potential for Excellence)

Distance Education

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COMMERCE

M.COM., SECOND YEAR

GROUP 'B'

MARKETING RESEARCH

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M.Com Second year Group 'B'
Marketing Research
Syllabus

Unit I	Definition of marketing Research - Management Uses of Marketing Research Steps in Marketing Research - Characteristics of good Marketing Research - Types of Marketing Research: Product, Advertising, Motivating, and Sales Control Research.
Unit II	Marketing Research Process - Identifying information needs - Formulating Control Research.Specific Research Projects - Designing and its initial steps in a Research Project Components of Research Design.
Unit III	Method of Collecting data - Questionnaire Method - Observational Method - Experimental Method - Secondary data.
Unit IV	Attitude Measurement and Scaling technique - Specific Scales of Measuring attitudes - Semantic differential Scale - Thurston differential Scale - Likert Summated Scale - Guttman Scale, Q - Sort, Stapel scale - Multi dimensional Scaling.
Unit V	Sampling - Nature of Sampling - Need for Sampling - Charcteristics of good sampling - steps in sampling - types of sampling: Probability sampling and Non - probability sampling
Unit IV	Tabulation of Collected data - Preparing raw data - Editing and Coding - Key Punching - Using Summary Statistics - Sorting and Counting data - Univariate tabulation - Bivariate tabulation - Multi-Variate tabulation.
Unit VII	Report Writing - Format of Research Report -target audience - types of reports - Contents of Report - style of reporting - steps in drafting - evaluation of the Research Report.
Unit VIII	Product Research - New Product Research - Product life cycle Research - Product mix Research.
Unit IX	Advertising Research - Product Appeal Research - Media Selection Research Sales Control Research - Sales Forecasting - Sales Analysis - Sales Potential methods for developing market potentials.

Books for Reference

1. DR.D.D.SHARMA - Marketing Research, Principles, Applications and cases.
2. HARPSR W.BOYD.RALPH WESTFALL AND STANDLEY F.STARCH - Marketing Research - Text and Cases
3. LUCH - Marketing Research

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UNIT - I INTRODUCTION

STRUCTURE

1.0 Introduction

1.1 Unit Objectives

1.2 Meaning of Market Research

1.3 Definition of Market Research

1.4 Nature of Marketing Reasearch

1.5 Objective of Marketing Research

1.6 Management uses and Importance of Marketing Research

1.7 Steps in Marketing Research

1.8 Characteristics of Marketing Research

1.9 Application of Marketing Research

1.10 Classification of Problem in Marketing Research

1.11 Advantages of Marketing Research

1.12 Limitations of Marketing Research

1.13 Types of Marketing Research

1.14 Key Terms

1.15 Model Questions

1.0 INTRODUCTION

Marketing is a broad concept. it covers many business activities. They are assembling, standardisation and grading, packing, branding, warehousing, advertising and selling. These activities directs the flow of goods from the producer to the consumer.

Before the industrial revolution the emphasis was on the production and better production of goods. Productions were carried on a small scale and it was the era of producers i.e consumers buy what was produced by the producers. But after the revolution it was changed entirely. Goods are Produced in large scale. There are more supply than the demand. Consumers become sovereigns. Producers have to produce what is demanded by the consumers. Producers have to anticipate the

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future need and demand of the consumer and produce accordingly. so they are forced to collect information regarding the needs and demand of the consumers. The marketing functions gain more imporiance than other functions such as production financing, assembling, grading etc. Market informations are collected through marketing Research.

1.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Meaning of Market Research
* Definition of Market Research
* Nature of Marketing Reasearch
* Objective of Marketing Research
* Management uses and Importance of Marketing Research
* Steps in Marketing Research
* Characteristics of Marketing Research
* Application of Marketing Research
* Classification of Problem in Marketing Research
* Advantages of Marketing Research
* Limitations of Marketing Research
* Types of Marketing Research

1.2 MEANING OF MARKET RESEARCH

Marketing Research is the collection and interpertations of facts that help marketing management to get products more efficiently into hands of the consumers. it is the gathering, recording, analysing and reporting of facts relating to the transfer and sale of goods and services from the producer to the consumer.

1.3 DEFINITION OF MARKETING RESEARCH

Learning more about the consumer and about marketing is the heart of marketing Research.

The nature and scope of marketing research can be well explained by its definition. There are a number of definitions and no definition is found to be complete. Some of these definitions are given below.

Marketing Reseach illuminate a Firm's path to profitability and helps it to walk into the dark future eithout trembling legs.

According to Brien and Stafford, "Marketing Research provides an orderly flow of information collected from both intra and extra resources for use as the basis for decision making in specified areas of marketing manaement."s

In the words of Dr.Albert B.Blanken ship, Maketing Research is an ancillary service that allows the management to manufacture with a better idea of what can be sold, how much can be sold and how to combine the various tools of selling to minimise Waste."

George Kress defines Marketing Research as the systematic investigation of marketing activities carried out in order to discover new information and relationships as well as to expand and verify existing knowledge.

In 1962, the British Institute of Management defined marketing research as : The objective of gathering, recording and analysing of all facts about problems relating to the transfer and sales of goods and services from producer to consumer.

Accordind to Kotler, Marketing Research is the systematic design, collection, analysis and reporting of data findings relevant to specific marketing situtaion facing the company.

Dr. R. Brown defines 'Marketing research is the use of scientific method in the solution of marketing or distribution problems for the purpose of increasing sales, decreasing distribution costs and maximising profits.

The American Marketing Association has defined Marketing Research as

" the systemmatic gathering, recording and analysing of data about problems relating to the marketing of goods and services"

Riched Dcrisp has defined the term Marketing Research as follows

"the systematic objectives and exhaustive search for and study of the facts relevant to any problems in the field of marketing".

1.4 NATURE OF MARKETING RESEARCH :

The Nature of Marketing research can be explained with the help of follow-

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I. It is a Function of Marketing Management : Marketing research operations helps the marketing executives to keep abreast with the environmental changes by providing right information on dynamic environments to facilities decision making. The Marketing environment consists of customers, competitors, suppliers, distributors etc. The information generated through marketing reserach can be used to determine most apporpriate marketing mix. Thus marketing research is a well recognised and very important function of marketing management.

II. It is an integrated effort : A team work or group effort is needed for carrying out marketing research activities in any organisation. Research objectives are set by planning executives, data for the accomplishment of these objectives are determined by the data requirement analyst. The data proceesor should know the nature and location of available data retrieve and process it at the desired time. Thus marketing research is a team effort.

III. It is a Systems approach : Marketing reearch involves a number of activities viz collection, recording, tabulating, analysing and interpretation of information. Each of these activities are performed by some experts who are supervised by marketing management executives. Thus Mmarketing research constitutes a systems approach from start to finish.

IV. It is an inter - disciplinary Process : Marketing researcher collect vast amount of information from various disciplines viz economics, sociology, psychology etc. and uses various statistical and mathematical techniques to process this information. psychological and sociological is used to study consumer behaviour. Thus Marketing research is based on inter - disciplinary apporach.

V. It is an Imperfect Science : The studies in marketing research are never exact as it deals with unpredicatable and dynamic huma behaviour. the results are always uncertain with certain amount of risk. Thus marketing research is based on scientific method and can be termed as science as science but it can not be designated as perfect like other social science i.e. it is an imperfect science.

1.5 OBJECTIVES OF MARKETING RESEARCH :

The aims and objectives of marketing research are mainly directed towards this phenomenon.

These can be outlined as :

(i) to defined the potential market for a particular product and to determine general marketing conditions and product distribution techniques.

(ii) to estimate the potential buying power of the consumers.

(iii) to assesss the competitive strength of the product and consequence of planned marketing policies.

(iv) to recommend the most suitable distribution methods for the product and the market.

(v) to estimate future sales of the product.

(vi) to know customers acceptance.

(vii) evolve methods of collecting relevant and reliable information.

(viii) specification of the relationship between various marketing factor. e.g. advertisement and sales relationship

(ix) to do post- mortem of what had already taken place.

(x) provide solutions to marketing problems.

(xi) risk reduction and discovery of opportunities.

1.6 MANAGEMENT USES AND IMPORTANCE OF MARKETING RESEARCH :

Business executivess are becoming increasingly dependent upon marketing research; They want quick pertinently accurate information flow from the internal and external environment of the firm to facilitate the process of decision making. The decision may be concerning environmental changes and probable impact on the firm setting objectives, formultating policies, findingmarket opportunities, determining markerting sub strategies, allocating resources to this programme planning and operating specific marketing operations etc. These are explained future as follows.

1) A tool for decision making :

Earlier periods decisions were based on guess work in market estimate. Big

decisions on the basis of hunces proved to be hazardous leading to waste of marketing resourches and efforts in modern time. Today systematically organised research is proved to be successful. Nowadays the inforamtions are collected systematically through the marketing research and decisions are taken on the basis.

2) Leads to large scale production :

Increase in production reduction in wastage resources, production of right gooods in right quantity have improved the standard of living of people. Market research has helped the manufacture to explore identity and locate consumer markets and to cultivate them for future intensive and extensive expanison.

3) Growth and Complexity of market :

Growth of large scale industry led to the development of stiff competition. it has made the market more complex and costly. Large scale industry can get success if they are able to know the potential consumers, their taste, preference needs habits desires and economic conditions. These informations are made available through marketing research only.

4) Changes in the pattern of Consumption :

Consumption pattern of the people depends upon their personal income and the certainity of income in the future. In marketing research, an analysis is made to study the effect of changes in income on spending and saving. For example in india women employments are increasing day by day. This has increased the income of the family and also changes the consumption pattern. it increases the need for automobiles, appliances for fast cooking etc.

5) To study changes made by marketing factors :

Market changes are influnced by controllable and uncontrollable market factors. Uncontrollable factors represented by economic sociological, psychological and political forces make changes in the market. Like that controllable factors such as changes in price, introoduction of new product, changes in promotional strategy by an industry also affect the market. A systematic study of factors helps the producers to product the market changed and act accordingly.

6) Helps in determining market operations and market strategy :

Profitability of an industry depends mainly on the production and marketing

ıunction. First thé needs and desire of the conumers regarding product should be analysed and produced. Moreover the cost of the product should be cut down market research stimulate the production research in designing the production operation. such a way to cut down the cost and to increase profit.

Present environment are in a situtation of regular change. Hence market policies are to be changed from time to time. Deisions regarding the product channels of distribution, Physical distribution, pricing, promotion must be taken appropriately. Periodic evaluation of the impact of each decisions on the forms marketing situation and its market should be made. marketing research plays vital role in this regard by supplying required information and by conducting research.

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1.6 MANAGEMENT USES AND IMPORTANCE OF MARKETING RESEARCH:

1) A tool for decision making,

2) Leads to large scale production,

3) Growth and Complexity of market,

4) Changes in the pattern of Consumption,

5) To study changes made by marketing factors,

6) Helps in determining market operations and market strategy,

1.7 STEPS IN MARKETING RESEARCH :

Market Research are become successful whwn the informations are col lected and processed in a scientific manner. Marketing research calls for a high degreeet competence and training. There are seven principal steps that are to be taken in this process.

1. Problem formulation :

A Problem well defined is half solved. The Precise definition of the problem helps in determining the technique to be used, the extent of the information to be collected etc. One should know what is exactly required. Marketing elements of the problems should be isolated and identified in most precise terms.

2. Decision on Fact gathering produre :

The second step is to find out the best procedure for getting the information i.e. planning the research technique. The procedure requires the following steps :

a) Establising the facts that are available at present and the additional facts required.

b) Determining the availability of the required data.

C) Setting an organisation for the collection of additional inforamtion required.

3. Data Collection :

Data available with us are inadequate fresh data have to be collected. Data

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1.7 STEPS IN MARKETING RESEARCH:

1. Problem formulation,
2. Decision on Fact gathering produre,
3. Data Collection,
4. The Marketing Sample,
5. Data Evaluation,
6. Interpreting the data
7. Report Preparatio:
1. Executive Report,
2. Technical Report,
3. Data Repor,
4. Popular or persuasive Report

may be divided into two : Primary data or Secondary data. These data may be collected either through census method or sampling method. In either of the case, a research may adopt a) observation technique or b) survey technique or c) Expermiment to collect data. The techniques are choosen according to the nature of the problems, number of respondents, degree of accuracy required etc. In case of sampling method, size of the sample, method of sampling are to be determined.

4. The Marketing Sample :

The sample is a small group taken from the total group. The total may be a city, a state, a nation or the whole world. Sampling is essential to substantiate and interpret the data.

5. Data Evaluation :

The data collected may not be accepted because they may contain unnecessary and under emphasised facts. Hence at this stage dfata required for research alone is taken and used.

6. Interpreting the data :

After evaluation the data are analysed. The Analyst uses statistical tool such as chisquare method, scaling technique, percentage method, **'t'** test, **'f'** test etc. to interpret the data. After thorough analysis and interpretation they prepare report.

7. Report Preparation :

Report prepartion is the lash phase in the journey of research. The results are summarised and report is prepared in desired form. The Findings and recommendations are presented in the form which enable the researcher to understand easily. In general the reports are classified as follows :

1. Executive Report :

The important matters alone are highlighted in this report. Generally it does not include the entire but the results and suggestions are given more emphasis in this report. The executive need not interpret the facts and make a through study of it.

2. Technical Report :

It contains the definition of the problems, hypothesis formulated, tools used to test the hypothesis and other research methodology.

3.Data Report :

It provides only data in the form of tables, charts diagrame etc. It does not seek to interpret what the finding mean. For example fluctuation in sales may be shown in the graph without saying the reason for fluctuation.

4.Popular or persuasive Report :

It simply narrate an incident and is purely non technical and has no value in commercial field.

1.8. CHARACTERSTICS OF MARKETING RESEARCH

Generally the characteristics of marketing research are listed as follows :

I. Marketing Research is an objective and systematised body of knowledge.

II. It Involves collection, recording, analysis, interpretation and reporting of some relevant information.

III. Provides more efficient marketing of goods and services to consumers, it is concerned with problems relating tp products. markets and methods of sales and distribution.

IV. Deals eith present and potential consumers as well as the changing market environment.

V. Provides regular and reliable information about the product. Its market and the potential consumer to the management so as to chalk out appropriate marketing strategy. It is a systematic and continuing study.

VI. There can be both intra and extra resources for collecting information.

VII. It Provides information for decision making and to develop new knowledge.

VIII. Marketing research is an attempt to find justified solutions to marketing problems.

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1.9 APPLICATION OF MARKETING RESEARCH :

Applications of marketing research can be listed as

(i) Market potential analysis for existing products and to estimate demand for new products.

(ii) Sales forecasting

(iii) Study of market trends with respect of income, profession, education etc.

(iv) Markets in terms of consumers viz.distribution of consumers

(v) Nature and size of markets

(vi) Comparative study of competitive products

(vii) Product developement,product line decisions, strength and weakness of the product.

(viii) Packaging and design research to study the impact and response of packing in the market

(ix) Study of advertising effectiveness

(x) Selection of effective and appropriate advertising media

(xi) Fixation of sales territories

(xii) Evaluation of sales personnel performance

(xiii) Evaluation of present and proposed sales methods

(xiv) Fixing sales targets

(xv) Study of regional variations in sales

(xvi) Channels and methods of distribution

(xvii) Handling and transportation studies

(xviii) Dealers supply and storage requirements

(xix) Marginal Analysis

(xx) Demand elasticity.

1.10 CLASSIFICATION OF PROBLEMS IN MARKETING RESEARCH :

Marketing research problems can be classified in the areas of production, sales,product and product designs.

(I) Problems related with Production : It is observed that there is a considerable gap between the factory and the ultimate consumer. Furthermore,there is always a time lag between the changes in the attitude of consumer and the knowledge of this change to the manufacture,This gap should be bridged for smoothproduction in terms of :

(a) Rationalisation of product line : This is related with the planning of manufacturing items of different sizes,shape and colours as well as to determine the optimum product mix.

(b) Economical runs : In a production process,long production runs always keep down the production costs. An arbitary production policy may sometimes result in more output than demand. But with an uptodate knowledge of expected change in the demand of a product. The size of production runs can be determind in advance which may be most economical without any risk of accumulation of unwanted stocks. Thus with marketing research operations the capacity of factorycan be ustilised to its best advantage.

(II) Problems related to sales: Sales department of an organisation has a closer link with matketing research.Marketing research not only helps the sales department in formulating its policy and plans but also enables it to keep a constant check on the performance.The studies can be in terms of sales,market share, distribution strategies,performance of sales force,seasonal trends, quotas, distribution strategies,performance of sales force,seasonal trends, quotas, servicing provisions and cost and profict analysis.

(a) Sales Analysis : These investigations can provide userful guidelines in determining superior and inferior areas of performance.This may also help in fixing suitable sales territories as well as in knowing the customer's product requirements.

(b) Marketing share studies : These studies related to the determination of total industry sales in a particular market and how one particular brand of

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a product can be ranked against competitive brands ion terms of sales volume.Consumer purchase panels are used to measure the performance of specific products in markets.

(c) Channelising the distribution : " If goods are to sell they must be available where consumer's wants to buy them". Uptodate and reliable information about the buying habits of consumers can help in chalking better distribution strategies. It is observed that sometimes a product is not popular due to selection of wrong distribution channel. The problem can be tackled by comparing the distributors current sales with its sales attainments in past or by studying performance of various distribution outlets.

(d) Seasonal and Non - Seasonal trends : The trend indicates the time or period, when the consumers are likely to buy more or buy less. This information is valuable for proper sales planning and in the formulation of effective advertising policy.

Non - Seasonal trends may be due to changes in economic conditions or due to changes in competitors policies. In such situations marketing research can help the manufacture to avoid strain, if any, on his resourches.

(e) Quota, Weak spots and servicing provisions : By assessing the potential as well as the actual demand of a product and the likely changes in demand, marketing research can help the sales departement to set affter sales quota accordance eith the potentialities.

Similarly in some instances the decline in sales of a product may be due to weakess in marketing policy of the organisation or some other considerations viz, price, display, advertisement etc. This weakness can be detected by marketing research operations.

Some products may require facility of after sales service. This planning can be very well done by conducting marketing research investigations.

Thus a sales department using marketing research can keep its finger continuously on the pulse of the market and adopt its actions to meet the changes before these happen or occur.

(III) Product and product design : The problems regarding the product can be listed as product markets, potential market, actual market, new produt need, market description etc.

Determination of potential market is to always a problem of new product or new market studies.

Another important study regarding product is have the knowledge about the market i.e.geographical location, income group of consumers constituting the market.

Similarly in the case of new products the producer may like to know the probability of consumers acceptance as well as the competition its product is likely to face.

1.11 ADVANTAGES OF MARKETING RESEARCH :

The following are the main advantages of marketing research :

(a) determines the position of a firm's product in the market of a specific industry.

(b) tries to indicate the present and future trends of the indutry.

(c) assists in developement and introduction of new products.

(d) provides guidance for improving the existing product.

(e) evaluates the performance of sales management.

(f) minimises the risk factor in the marketing of goods and services.

(g) It helps in identification and exploration of situations where absolutely nothing is known.

(h) It identifies salient behaviour patterns by providing information about beliefs, opinions, attitudes, motives etc.

(I) Marketing research techniques can be used to collect information about phenomenon where quantitative techniques fail by using some projective techniques.

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Marketing research objectives can be achieved and implemented effectively in drawing conclusions only when there is a timely recognition of a problem.

1.12 LIMITATIONS OF MARKETING RESEARCH :

Marketing research though based on scientific methodology cannot be termed as exact science. There is always some touch of approximations in its nature. Due to this there exists some inherent limitations in the system which can be characterised as :

(i) Limitations of accuracy : Marketing Research is not an exact science. Due to presence and dominance of human behaviour in marketing research operation, hundered percent mathematical accurancy is not possible. It provides reliable information, with sufficient degree of confidence, on which important policies can be formulated.

(i) In Marketing research process controlled experimentation is not possible due to presence of so many variables in the marketing phenomenon.

(iii) Marketing research deals with unpredictable human behaviour viz, consumers, dealers, retailers etc. These individuals may not behave in a natural manner when they become concious of being observed. This distorts the conclusions.

(iv) It is very difficult to verify the results of marketing research. Thus objectivity and verification which are very important component in scientific research are present to a lesser extent in marketing research.

(v) Limitation of time : The methodology of marketing research is quite time consuming. It studies tastes of human beings, their preferences and habits as well as the intentions which are always changin with time. The time gap affects the successful implementation of research findings.

Thus one should try to complete such studies in the shortest possible time so that decisions based on it are valid for coming period. Here time is a more important factor than accuracy.

(vi) Limitations of Personnel : Poor and ill trained persons can be extremely dangerours in marketing research applications. They are likely to produce unsatisfactory and expensive results. Moreover interpretation of statistical findings is not an easy and simple task. The lack of appropriate trainig to researchers leads to mis interpretation of questions to be asked for data collections.

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1.13 TYPES OF MARKETING RESEARCH :

The types of marketing research can be summarised as follows 1) Product Research 2) Advertising Research 3) Motivation research and 4) Sales control research

1. Product Research :

Product research deals with problems facing the product planning. It includes new product development, modification of an existing product, imitating competitors product, formulating and implementing produce life cycle strategies, designing and evaluating packaging and branding strategies after sales service and other product planning aspects. The suceess of firm is mainly determined by its product planning. For example all toothpaste contains clove oil but any 'promise' with unique selling position. Among other scooter manufacturer, bajaj could get more sale because of its product planning. New product research, product life cycle research and product mix research are the important elements which make the product research a successful one.

2. Advertising Research :

The expansion of market both at international and national level has created a wide gap between the producer and consumer. Advertisement bridges the gap. Hence the producers spend heavily to persuade people to buy goods and services through advertisement. Advertising research is concerned with the objective evaluation of advertising as a method of communication and persuasion. It is an application of marketing research aimed at the measurement of advertising effectiveness and its efficiency. It's ultimate aim is to measure advertising impact on sale of goods or service. Advertising research is considered under three main categories 1) Advertising contents research 2) Advertising media research and 3) Advertising effectiveness research.

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3. Motivation Research :

In marketing research one may require information about the behaviour attitude expression some thought or feeling and other charactertistics of human person. These information may be needed to know why consumer buy one brand or give preference when compared other alternative brand. These informations may help them to design their products, package, to fix the price. But few may not respond to these question when asked directly. It may be due to the reasons that a) they may not know the answer or b) they may unwilling to tell when the subject is morally sensitive or status related or c) may give illogical reason for their answers Motivation research use psychiatric and psycological technique to obtain better informations. It attempts to get the underlying or hidden reasons for behaviour. The major areas and human behaviour about which informations obtained are atitudes, image sensation, motives and assumptions.

4. Sales Control Research :

Sales control research can be described as the identification and measurement of all those variables which individually and in combination have effect on sales. It includes marketing studies relating to sales forecasting market potential, market share analysis determing market chracteristics and sales analysis. It also studies problems of regional variation in sales, fixing sales territories, measurement of the effectiveness of salesman evaluation of sales methods incentives etc.

1.14 KEY TERMS

* Consumer
* Factor
* Strategy
* Motivation

1.15 SUMMARY

Meaning of Market Research, Definition of Market Research, Nature of Marketing Reasearch, Objective of Marketing Research, Management uses and Importance of Marketing Research, Steps in Marketing Research, Characteristics of Marketing Research, Application of Marketing Research, Classification of Problem in Marketing Research, Advantages of Marketing Research, Limitations

of Marketing Research and Types of Marketing Research are dealt in details in this unit.

1.16 MODEL QUESTIONS :

Part - A

1. Difference between Market research and Marketing research.
2. What are the various steps involved in Marketing Research?
3. What are salient features of Marketing Research?
4. What are the various types of Marketing Research?
5. Point out major application of Marketing Research?

Part - B

1. Define Marketing research. Highlight the nature and scope of Marketing research.
2. State the importance of Marketing Research in today's Marketing Management Operations.
3. Discuss the role of Marketing research
4. "Marketing Research is an aid to effective decision making" - Discuss.
5. Point out the limitations from which Marketing Research suffers in our country.

Sources : B.S.Goel, Marketing Research, Prakati Prakashan, Meerut.

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Unit - I

True - False

1. Marketing Rersearch is the collection and interpretation of facts that help marketing management to get products more

2. Report preparation is the lash phase in the journey of research.

True / False

3. Sales department of an organisation has a closer link with marketing research .

True / False

4. The trend indicates the time or period. when the consumers are not likely to buy.

True / False

5. Product research deals with problems facing the product planning.

True / False

Answer.

1. True 2. True
3. True 4. False
5. True

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UNIT - II MARKETING RESEARCH PROCESS

STRUCTURE

2.0 Introduction

2.1 Unit Objectives

2.2 Steps in marketing research project

2.3 Research Design

2.4 Key Terms

2.5 Summary

2.6 Model Questions

2.0 INTRODUCTION :

Business executives are becoming increasingly dependent upon marketing research. They need informations from internal and external environments to take market decisions. The decisions may be concerning environments changes and probable impact on the form setting objectives formulating policies finding market opportunites determining marketing sub strategies planning marketing programmes etc.

Marketing research can not be conducted abruptly. A researcher has to proceed systematically in the already planned directions with the help of number of steps in a sequences. All those steps in marketing process.

Identifying information needs :

Establishing the need for marketing research information is the first step in the research process. The research must specify the objectives of the proposed research and develop a specific list of information needs. The list will clearly reveal the information needed to attain the objectives. It reduces the uncertainity surrounding the decision situation. Information need should be consistent with the ability to gather the data. The researcher mus thoroughly understand the need for the information. If the research is for decision making the need for research information must be precisely defined.

2.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Steps in marketing research project
* Research Design

2.2 STEPS IN MARKETING RESEARCH PROJECT :

The market research process is carried out according to a designated series of steps which are required to be taken in a chronological order. The major research steps are diagrammatically shown as follows :

2.2 : 1 Formulation and Definition of Research Problem :

The first task of a marketing research executing a marketing research project is to find out the problem and to define it. The problem that is chosen must be amenable or research and it has to be recognised as a problem from research angle.

Before a market research project is undertaken the problem must be identified which will give greater confidence to the researcher to pursue his work. If the problem is not identified, it will lead to waste of time and money. Moreover only on the basis of a problem, a researcher can decide the course of action, design the research project and also fix the budget.

2.2:1.1 Classification of research problem in marketing research (or) sources of problem in marketing research :

A project or problem could be identified by a researcher by means of understanding different type of difficulties and symptoms. Marketing project can be classifed in the areas of production, slaes product and product design. The researcher is expected to know the 'ins' and 'outs' of the organisation, to locate a problem. A problem could be identified by means of preliminary exploration of information sources of the company while examning sales records stock turn over or production record.

i) Problems related with production :

There is always a gap between a producer and a consumer. Like that there time lag between the changes in the attitude of the consumer and the knowledge of this change to the manufacturer. This gap should be bridged by means of

optimum product mix.

b) Optimum scale of production :

Large scale production leads to low cost of production but the risk of unsold stock. Small scale production increases the cost but shift of demand for want of regular suply. Hence a balance should be struck between these two.

ii) Problems related to sales :

Marketing research helps the sales department to formulate its policy and plans. The problems may be related to sales, market share, channels of distribution, seasonal trends etc.

a) Sales Analysis :

Investigation related to it can provide useful guidelines in determining the potentially and performance of each area. It helps in fixing sales quota and allocating sales tettitroties. Requirements of consumers also be understood.

b) Market share :

It referes to the sale of the company compared to the sales in the entire industry. It enables to know ranking position of the brand in the industry in terms of sales volume. Consumer purchase panels are used to measure the performance of specific products in the market.

c) Channels of distribution :

Projects related to it helps to framce right distribution strategy. Performance various channels can be analysed and the faults can be rectified. Strength and weakness of existing channel can be ascertained.

d) Seasonal trends :

The trend indicated the time or period at which consumer buy more or less. It helps the decision maker to advertise in proper time and to produce required quantity.

Non seasonal trend may also indicate the completion conditions and the strategy required .

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e) Demand analysis :

By assessing the potential as well as actual demand for a product and the likely changes in demand marketing research can help the production and sales department to take required decision.

iii) Product and Product design :

The problems regarding the product can be listed as product market actual market, new product need, market description etc. Moreover a producer can have upto date knowledge about the changes in the attitude and behaviour of its actual consumers. In case of new product consumer's acceptance or neglet of the product and causes for the same can be understood.

2.2: 1. 2 Formulation of Research Problem :

The problem formulation is a technique to guide the entrepreneur about the existence of the problem and inform its necessity. Every researcher must know exactly what is to be solve. Other wise his efforts are to be misdirected resulting in waste on time, money and energy. A well formulated problem enables the researcher to determine the nature of information required in the investigation. Unless a problem is exposed tooth and nail, one can not find out solutions or conclusions would become evasive, unclear and unspecific.

2.2:1.3 Various of researches for problem formulation :

Problem formulation process mainly consists of studying situation environment hypothetical solutions or action and choice of most appropriate course of action. These studies can be conducted by three types of researchers namely preliminary, exploratory and conclusive research.

a) Priminary research :

It involves I) discovering and crystallising the problem ii) describing the relevant situation or environment.

The corresponding symptoms of the problem are thoroughly probed by the esearcher and the decision maker to understand the cause. It is conducted by collcting limited secondary data and taking informally with people knowledgeable in e field. It enables a researcher to recognise a problem worth pursing.

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b) Explanatory Research :

Here the hypothetical solutions or actions are explored and evaluated by the decision maker. It determines fruitful alternatives that the executive would not have perceived. It narrows down the scope of investigation.

c) Conclusive Research :

It helps to select most appropriate course of action. This need more care and efforts. It validates or verifies the expected outcome of each hypothesis. Some time uncertain conditions may orce the decision maker to use his intutin and judgement but the general, major decisions are always based on conclusive research.

2.2:1.4 Steps in problem formulation :

Formulation of a problem needs the following informations

i) Nature of the environment and the resources at disposal.

ii) Quantification of objectives in measurable terms

iii) Alternative solutions to a problem.

iv) Evaluation of various alternatives problems formulation requires thorough knowledge of the phenomenon as well as experience in the line. It requires considerable consultations to know the ins and outs of the business and other related factors. The following are the steps in problem formulation.

a) Identification of the problem :

Identification of the problems in marketing research is most important phenomenon. The existence of a problem can be identified on the basis of the following

a) Presence of some symptomatic situation :

By means of understanding different types of difficulties or symptoms a problem can be identified. Symptomatic situation can be classified as follows :

OVERT DIFFICULTIES :

These are situations generally experienced in routine working (e.g.) lagging sales volume is a symptom.

LATENT DIFFICULTIES :

These are symptoms which are not seen openly but to be explored. For example decline in sales may demoralise salesman potential demand for a product in an area may not be known but can be explored. These difficulties can be known through :

1) Information channel : Through trade news or some other channels.

2) Formal research studies in other fields

3) Performance analysis namely, sales trend, market share distribution, cost and profit studies within the organisation.

4) There should be more than one soultion to the problem with some uncertainity associated with it.

If there is no solution or answer to some difficulty then it is not a problem. The problem arise only when there is more than one alternative solutions to it.

The specific direction or goal any research is explained by its objectivs. These objectives are determined during the identification of the problem. The final step in choosing the direction of research is to develop working hypothesis. It is of two types i) declarative statement that the researcher investigates, intending to select the most appropriate one in the light of the data collected.

b) Locating probable alternatives :

Researcher should enlist all possible causes responsbile for the occurence of the problem and arrange them in order of their probable importance. The researcher would investigate each alternative eventually selection the most appropriate are gathering informations to accept or reject the various statements accompolished the study's objectives. The problem of various courses of actions associated with solution of a problem help in;

i) Framing hypothesis which leads to further reserach.

ii) Assessing the nature and magnitude of the problem.

iii) Familiarise environment and project realistically the situation changes.

iv) Correct estimation of risk associated with partieular solution.

c) Appropriate marketing information system :

The essential purpose of marketing research is to provide relevant information which facilitates the identification of an opportunity or problem situation. Relevant and reliable information is likely to reduce the degree of uncertainly with respect to the consequence of some major decisions.

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2.2 STEPS IN MARKETING RESEARCH PROJECT :

i) Problems related with production,
ii) Problems related to sales,
iii) Product and Product design,
Various of researches for problem formulation :
a) Priminary researc,
b) Explanatory Research,
c) Conclusive Research, Steps in problem formulation:
a) Identification of the problem,
b) Locating probable alternatives ,
c) Appropriate marketing information system, Research Design , Field Work, Analysis and Interpretation of data, Report Preparation

At this stage a list of the precise types of information needed to accompolisth the study objectives and test its hypothesis should be determined. The first investigation that should be done in problem formulation research in internal records.

With the construction of working hypothesis and an identification of the information needed the specfic direction for the study has been set. The researcher is now ready to proceed with the formal investigation.

2:2:2 - Research Design :

Once the problem is formulated and defined the next step is the designing the research. It is a map or blue print according to which research is to be conducted. A research design is a frame work or plan for a strudy that guides the collection and analysis of the data.

2:2:3 - Field Work :

In this step information needed are collected through primary or secondary sources. Primary data may be collected by applying any one of the methods such as observation, interview questionnaire etc. Field survey may be conducted to collect the data. In some cases desk research may be conducted to utilise secondary data.

2:2:4 - Analysis and Interpretation of data :

Data analysis is carried out to get meaningful information. The data are edited, coded and tabulated for the purpose of analysing them in case of data collected are huge. Then the data will be analysed by using various statistical tools such as correlation, regression, chi-square test etc. taking into account the hypothesis framed. The tools will vary with the type of hypothesis. Finally, meaning of data may be extracted from the analysis then conducted. The conclusion, summary and recommendation of research are based on the statistical analysis and inference drawn.

2:2:5 Report Preparation :

Report writing is the last phase in the journey of research. After the collected data is analysed and interpreted the job of marketing researcher is to present results of the research in the form of a systamatically typed or printed report. The report should be technically accurate and as well as it should be understandable and useful.

2.3 RESERACH DESIGN :

A reserach is a plan of the proposed research work. To design is to plan; that is designing is the process of making decisions before the situation arises in which the decision has to be carried out. Decisions regarding what, where, when, how much by what means concerning and enquiry or a research study constitutes a research design.

2:3:1 Definition of research design :

P.V. Young :

"Research design is the logical and systematic planning and directing of a piece research".

Suchman :

" A research design is not a highly specific plan to be followed without deviation but rather a series of guide posts to keep one headed in the right direction".

2:3:2 Types of research design :

The research design differ depending on research purpose. The purpose of research may broadly be grouped into four categories namely exploratory or formulative studies descriptive studies diagnostic studies and experimental studies.

a) Exploratory desgin or formulative studies :

It is the primary stage of research. It is pre-conceptional stage of a research problem. It consists of problem finding or hypothesis formulation to be followed by other steps consisting of problem solving or hypothesis testing. The main purpose of an exploratory study is to formulate a problem for more precise investigation or for developing hypothesis. It is generally suitable for problems about which little knowledge is available.

METHODS OF EXPLORATORY RESEARCH :

i) Review of pertinent literature :

In this method literature relevant to research chosen are reviewed. It helps to find out the research gap. Review will give an insight into the problem and familiarity with the subject concerned. It enables to formulate valid hypothesis.

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ii) Experience survey :

Informal interview with the experienced people of the area of research may be helpful in getting an insight into the subject and its various facts. People having the knowledge experience and practical difficulties related to the problem are consulted under this method.

iii) Insight into stimulating cases / case study :

In this method a unit is explored and analysed. The unit may be a person a family an institution or a community. There are certain areas where there is little experience available. In such areas analysis of insight stimulating cases has been found very useful for intensive study. It is helpful in gaining experience discovery of new facts and formulation of a valid hypothesis.

Even though the exploratory studies are helpful for formulating hypothesis they are not tested in this studies.

b) Descriptive design and diagnostic studies :

Descriptive study enables a researcher to describe accruately the characteristics of a particular situation groups or communities under investigation. It merely describes the unit studied. For example a descriptive study regarding the customer may give detail such as his age, income, religion, caste, job method of purchasing, buying frequency etc. Generally hypothesis are formulated on the basis of the data collected under descriptive studies.

Diagnostic study, on the other hand, is concerned with discovery and testing of varaibles with respect to their association and dissociation. It is concerned with existing social problems and suggests solution to those problems. It finds out the causes for the problem. For example descriptive study describes the buying behaviour of the customer whereas a diagonostic study reveals the causes for such behaviours.

C) Experimental Design : (Testing casual hypothesis)

In this study case and effect relationship is studied. It is concerned with the testing of casual hypothesis. A hypothesis of casual relationship asserts is one of the factors that determine another characteristics or occurence (say 'y'). There may be many causes for an effect. This study reveals the effect of particular variable. For

example sales may be changed due to changes in price fashion, income etc. Here the effect of price changes on sales is studied.

TYPES OF EXPERIMENTAL DESIGN :

There are mainly four types of experimental studies.

1) After only experimental design :

In this method, two groups which are similar in character are selected. One is experimental group and other is controlled group. The experimental group is exposed to the experimental variable (x). After the experimentation is over both groups are compared and it may be noticed that some effect (y) is produced in the experiment group but not in control group. This x is regarded as the cause any is regarded as the effect.

ii) Before - After experiment design :

In this method five groups are taken and their conditions are observed and measured before the exposure to the experimental variables. After that the experiment group is exposed to experimetn for a speclic period of time, then the difference between the changes of dependent variables of both groups are measured.

Following are the types of

iii) Before - After experiment :

Condition	Experimental group	Control group
Before measurement	Yes (y1)	Yes (y/1)
Exposure to experimental factor	Yes	No
Exposure to uncontrollable factor	Yes	Yes
After measurement	Yes (Y2)	Yes (Y/2)
	Change = Y2 - Y1	Y2 - Y1

It is clear that in this design the difference between the subject position on the dependent variables before and after the exposure to the independent variable (experimental factors) is taken as a measure of the effect of the experimental variable.

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iv) Ex post factor experiment :

In this ex post facto study past is studied through the present. For example one may compare a country where a revolution has been taken place already with another country where it was not taken place. But in other type of experiment one try to study about the future from the present.

v) Panel study :

Panel study is a method of study of a particular subject. Overtime by using different kinds of data. In this study the researcher may secure direct evidence of time relationship among variables. It involves repeated observation on the same subject at different period of time. In a sense it is a type of time series study.

2:3:3) Advantages of Research design :

A methodically designed research may lead to the following advantages :

1) It may result in the desired type of study with useful conclusions.
2) It may lead to more accurate result or help to reduce inaccuracy.
3) It may give optimum efficiency and reliability.
4) It may minimise the wastage of time and beating about the bush
5) It may be helpful for the collection of research materiala and testing of hypoth esis.
6) A research design is a guide past for giving research a right direction.

2:3:4 Factors influencing research design :

The following factors influence the design of research.

a) Availability of sufficient data.
b) Proper exposure to the source of data, especially primary data.
c) Availability of time
d) Availability of money and manpower
e) Impact of the various internal and external as well as controllable and uncontrollable variables on the research project.

f. The ability, skills, knowledge and technical background of the researcher and

g. Utility and applicability of the research result in practice.

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2:3:5 Components of a research design :

Decisions regarding what, where, how much, by what means concerning an enquiry or a research study constitute a research design. Hence a researcher before preparing a research design should consider the above aspects. ICSSR - (Indian Council of Social Science Research) has given the following guideliness regarding the components of research design.

a. Title of the project

b. Statement of the problem

c. Overview of literature

d. The conceptual frame work

e. Research questions or hypothesis

f. Coverage

g. Data collection

h. Data processing

i. Time budgeting

j. Organisational frame work

k. Cost estimation

IN GENERAL THE FOLLOWING ARE THE COMPONENTS OF RESEARCH DESIGN

a) The Title of the project :

The title of any project or research project.

a. should be as brief as possible

b. should be as precise as possible

c. should project the scope of the problem in generalised terms.

b) Introduction :

A brief explanation of the genesis of the problem of research should be given. In the introduction, the researcher has to introduce the subject and relevant

informations relating to a topic of research statistical information, if at all needed and found relevant can also find a place in the introduction.

STATEMENT OF THE PROBLEM :

The selected problem may be stated briefly, pointing out its nature and its importance. The issue relating to the problem may also be pointed out. Usually the problem of investigation is stated in two days.

a) in the form of statement

b) in question forms

c) Scope of the study

The study chosen may have several facets. The facets or dimensions or angles focussed and concentrated by the researcher among the various facets / dimensions are specified here.

The extent of the study is specified in this heading. In this paragraph, the different aspects of the problem undertakes to study are specified. The scope of the study is dependent on several factors, such as the time and money available with the investigator, availability of the sample, co-operation of the respondents and the like.

d) Objectives of the study

The specific objectives of the study should be stated : These refer to the questions to which the researcher proposes to seek answers through the study. There must be a close relationship between the topic of research, objectives framed, chapter scheme and analysis of the research. The number or objectives selected should be limited to suit the needs of the topic.

f) Research questions

The statement of objectives may be followed by a statement of the investigative questions relating to the research objectives.

g) Limitations of the study

A study as well as researcher are subject to limitations of time, cost, sample etc. The other facts of the problem which are not taken for the study are specified here.

h) Definition of concept

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The major concept used in the study are defined. Normally the concepts are explained in the form of nominal definitions or in the form of operational definition.

Nominal definition refers to the meaning in general and which are established already.

Operational definition aims at specifying testing criteria or operations required for the measurement of a concept. The criteria or operation chosen should be unambiguous and objective.

One or two illustrations would help in securing a proper understanding of an operational definition.

i) Formulation of Hypothesis :

A tentative solution suggested to a problem is called a hypothesis. MaGuigan (1969) has defined hypothesis as a testable statement of a potential relationship between two (or more) variables.

Hypothesis refer to the anticipated outcome or possible answer to the research questions. They should be conceptually clear, simple and specific. They may either describe the chracteristics of a phenomenon or show the relationship between one variable and another hypothesis to be tested.

j) Geographical area to be covered :

The area to be covered by the study should be decided and specified in the plan. The area to be choosen depends on the purpose of the study and time and resources available.

k) Reference period :

This period may be one year or two or three or more years depending on the nature of the study and avilability of data. The reference period should belonger, say 5 or 10 years, when the study aims at making an analysis of the trend in an activity like production or sales or profitability.

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L) Methodology :

Besides using, the instrumnets like questionnaris interview schedules, projective techniques, attitude scales etc: the investigator may adopt other methods like observation, examination of records and so forth for data collection. In this section, the overall typology of the study experimental or descriptive or survey or case study or historical study has to be specified.

m) Sampling plan :

Where the study involves collection of primary data from the field, the description of the universe, and the methods of sampling to be used for drawing the sample from the universe and the sample size should be stated.

n) Tools for data collection :

The tools to be used for this purpose, interview schedule / guide or questionnaire or check list etc., should be stated and each of them should be described. The tools to be used should be appropriate, the method to be adopted for collection of data.

o) Plan of analysis :

The statistical techniques to be used for analysing the various categories of data should be specified. The application of appropriate techniques are necessary for testing hypothesis and drawing inferences data can be collected and avilability of finance is less secondary data will be the best choice.

p) Chapter scheme :

The chapter scheme of the report / dissertation to be prepared as the final outcome of the studily may be stated.

q) Financial budget :

Financial budget should as estimate of the expected costs of the project under various major categories like salary (if any) printing and stationert, postage, travel expenses, secretariall and typing etc.

This research plan with modification made at the implementation stage and a description of experiences of field work form part of the report under the title. "The design of the study".

The components of a research design can also be stated in the following way.

a) Sampling design :

The sampling design which deals with the methods of selecting items to be observed for the given study.

b) Observational design :

The observational design which relates to the conditions under which the observation are to be made.

c) Statistical design :

The Statistical design which concerns with the question of how many items are to be observed and how the information and data gathered are to be analysed and

d) Operational design :

The operational design which deals the techniques by which the procedures special in the sampling. Statistical and observational designs can be carried out.

2.4 KEY TERMS

* Formulation
* Component
* Process
* Ingredient

2.5 SUMMARY

Steps in marketing research project, Research Design are dealt in details in this unit.

2.6 MODEL QUESTIONS :

Part - A

1. How is a problem formulated?

2. What are different types of research design ?

3. Compare and contrast the exploratory and descriptive research design.

4. What are the various steps involved in Marketing Research process?

5. State the importance of research design.

6. What are the essentiates of a good research design?

Part - B

1. How does the researcher define and analysis the problem?

2. Discuss the various components of problem formulation process?

3. Define a research design, Explain it with an imaginary example.

4. What are the basic ingredients of research design? Discuss it briefly?

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Unit - II

True - False

1. Business executive are becoming increasingly depedent upon marketing research
True / False
2. A project or problem could not be identified by a research by means of understanding different types of difficulties and symptoms. True / False
3. The problem formulation is a technique to guide the enterpreneur about the existence of the problem and inform its necessity
True / False
4. Researcher should enlist all possible causes responsible for the occruuence of the problem and arrange them in order of their probable importance.
True / False
5. Data analysis is carried out to get meaningful information.
True / False

Answer.
1. True 2. False
3. True 4. False
5. True

UNIT - III METHODS OF COLLECTING DATA

STRUCTURE

3.0 Introduction

3.1 Unit Objectives

3.2 Source of Information

3.3 Questionaire Method

3.4 Observation

3.5 Experimentation Methods

3.6 Telephone Interviewing

3.7 Interview

3.8 Projective Techniques

3.9 Secondary Data

3.10 Key Terms

3.11 Summary

3.12 Model Questions

3.0 INTRODUCTION

Once the research problem to be studied has been defined the specific information needed has to be determined. The researcher has to determine the sources from which he will get this information. Data constitue the formation on which the supersturcture of statistical analsis is built. Hence if the data are inaccurate and inadequate the whole analysis may be faulty and the decision taken may be misleading.

3.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Source of Information

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* Questionaire Method
* Observation
* Experimentation Methods
* Telephone Interviewing
* Interview
* Projective Techniques
* Secondary Data

3.2 SOURCES OF INFORMATION :

The sources of information are generally classified into primary and secondary. P.V. Young has classified the sources of information as documentary source and field source. Books manuscript, Letters etc. are secondary sources white the information collected from the respondent constitute primary or field sources.

3.2.1 Primary Data and Secondary Data :

Primary data refers to information that is generated to meet the specific requirements of the investigation at hand. On the other hand secondary date is information which is collected for a purpose other than to solve the specific problem under investigation.

Primary data are those which are collected for first time and thus original in character where as secondary data are those which have already been collected by some other persons for some other purpose.

For example census taken by the goverment of india is primary data to it. But when such data are used by a researcher for his investigation. It is collected as secondary data.

3.2.2 Choice between primary and secondary data :

The investigator must decide at the outsey whether he will use primary data or secondary data in investigation. The choice between these two depends on the following considerations.

1. Nature and scope of the problem :

Nature and scope of the problem influence the choice of primary data or secondary data. In this case of pure research, which is something new to existing new to existing theory, primary data are essential where as in case of descriptive research secondary data are essential to explain a phenomena if the problem is narrow and deeper or current nature. Primary data is suitable than secondary data which are historical in nature.

2. Availablity of finance :

Availability of finance also determines the choice of data. Collection of primary data is costly compared to secondary data. So if finance is available enough primarydata can be collected and availability of finance is less secondary data will be the best choice.

3. Availabilty of time :

Collection of primary data requires long time whereas secondary data consumes less time. Hence if long time is available to do research primary data can be collected and if limited time is available secondary data. It the research needs more accuracy, primary data is useful.

4. Nature of technique to be used :

Techniques such as interview, observation etc. determines the nature of data to be used. For example, if a problem is to investigated only by interview method or observation method, we can choose only the primary data.

5. Degree of accuracy described :

The degree of accuracy to be maintained in the collection and analysis of data also divides the choice of the primary or the secondary data. If the research needs more accuracy, primary data is useful.

6. Area Coverage :

The geographical area to be covered in the investigation is wider and long second data is suitable.

7. Nature and quantum of information to be collected :

Primary data are suitable if more information are to be collected with more accuracy.

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3.2 SOURCES OF INFORMATION:

1 Primary Data and Secondary Data ,
2 Choice between primary and secondary data: 1. Nature and scope of the problem ,
2. Availablity of finance, 3. Availabilty of tim,
4. Nature of technique to be used ,
5. Degree of accuracy described,
6. Area Coverage,
7. Nature and quantum of information to be collected,

METHODS OF COLLECTINC PRIMARY DATA:

1. Direct personal interview,
2. Indirect oral investigation,
3. Mailed Questionnaire method,
4. Interview Schedules

METHODS OF COLLECTING PRIMARY DATA :

Primary data may be collected by any one of the following methods :

1. Direct personal interview.
2. Indirect oral interview
3. Mailed questionnaire method
4. Interview schedule.

1. Direct personal interview :

In this method, the researcher has face to face contact with the respondent (person from whom information is to be obtained). The interviewer asks the questions pertaining to the research problem and collects the information. The information thus obtained is first - hand or original in chracter. The informations are reliable and clarified one.

2. Indirect oral investigation :

In this method, the informations are collected by contacting thirc parties or witness capable of supplying the necessary information. It is adopted when the information to be obtained is complext in nature and the respondents are inclined to displease information, if approached directly. For example the police enquiry belong to tihs method.

3. Mailed Questionnaire method :

Under this method list of questions, called questionnaire is prepared and sent to the respondents. Along with a covering letter requesting the respondent to answer the questions. The respondnet fills up the questions and send back to the researcher. It is suitable when the respondents are large and spread over wide area.

4. Interview Schedules :

In this method the researcher or his enumerators interview the respondent along with a schedule. A schedule is like a questionnaire but it is filled by the researcher or his enumerators. This method overcoes the various limitations of Mail questionnaire method.

3.3 QUESTIONNAIRE METHOD

Questionnaire is a list of questions framed in a definite order or form. It is an instrument to collect data from a large number of respondent whospread over wide

Goode & Hart has defined a questionnaire as follows : "the word questionnaire refer to device for answer to questions by writing a form which respondent fills in himself".

TYPES OF QUESTIONNAIRE :

The types of questionnaire can be listed as follows :

1) Open and questions :

It initiates the discussion related the problem and there is not limit for answering the questions.

2) Closed or multiple choice questions :

The answers to the questions are limited and the respondent has to choose the answer from the list given.

Example : How do you cook your food?

a) wood b) gas c) kerosene

3) Pictorial Questions :

Respondent answers to the question by selecting from the pictures given.

4) Dichotonomous Questions :

Only two alternatives are given and the respendent has to choose one.

(e.g) Are you married? Yes / No

5) Leading questions :

These questions itself suggest answer to it.

(e.g) Will it not be better to deliver goods at door?

6) Ambiguous Questions :

This type of questions can be interpreted different as it conveys several meaning. (e.g) Are you a richman?

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7) Ranking questions :

Respondent are asked to rank his answer according to his priorities or preferences. (e.g) Rank you choice of colourss?

Merits :

The merits of the questionnaire method are given below.

1. It is cheaper compared to other methods.
2. It is suitable where the respondents are large and wide spread.
3. Interviewer bias can be eliminated.
4. High income group and senior executives can be reached more easily.
5. Some respondents are different to interview particularly in industrial market.
6. Respondents get more time to give considered answer.
7. Time is saved, as questionnaire reaches many respondents at a time.
8. Repelitive information is also possible.

Demerits :

The drawback of this method is discussed below :

1. Generally the response rate is less. Because some respondent may be lazy or reluctant to answer or unable to understand the questions.
2. It is not possible to frame questions to suit all levels of people.
3. Lack of personal contact.
4. The respondent may give false or manipulated answers.
5. Respondent's handwriting may not be legible or understood.
6. Respondent's answers can not be verified and the accuracy becomes a question mark.
7. Low response rate may result in imbalance of samples.
8. Misrepresentation is a common experience.
9. It is difficult to find up to data address list and replies are difficult to analyse.

10. It is difficult to amend the approach once the questionaires have been despatched.

3.4. OBSERVATION :

Observation is one of the methods employed in collection of primary data. Observation means seeing things with a purpose. Observation is a process of acquiring knowledge through the use of sense organisations. Observation is not mere watching but involving listening and leading.

Definition :

P.V. Young has defined the term observation as follows :

"Observation is a systematic and deliberae study through the ye of spontaeous occurences at the time they occur. The purpose of observation is to perceive the nature and extent of significant inter related elements within complex social phenomena cultural pattern or human conduct".

A scientific observation is one which is planned and recordeo systematically and it is subjected to checks and controls on validity and reliability and finally serves research purpose.

KINDS OF OBSERVATION :

Observations are of various types which are discussea below :

1) Participant observation

· In general the term participant observations means watching events and activities from inside by taking part in those events and activities which are to be observed.

When the investigator actively participates in the activities of the group under investigation that is known as complete participant observation. The investigator associate himself with the group not as an investigator but as a fullfledged member of the group without disclosing his identify.

2) Non-participant observation :

The observer, in this method, does not actually participate in the activities of the group to be studied but simply present in the group, it is known as non-participant observation. The observer does not create relationship with the group. For

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instance without disclosing the identity the observer simply observe the brand choice of customers by standing nearby the shop.

3) Structured Observation :

The structured observation is characterised by a careful definition of the units to be observed. Informations to be recorded the selection of pertinent data for observation and standardisation of conditions of observation. It is generally designed to test casual hypothesis. The observer knows the situations under study and prepare specific plan for making and recording observation.s

4) Unstructured Observation :

There is no careful definition of the units and the informations to be recorded. Any record of the information may affect the naturals of the situation and create suspension in the minds of the person being observed. Hence difference observers observe same event and record the information.

5) Controlled observations :

Under this method, the control is exercised over the phenomana or over the observation or observer. The phenomena may be put under the guid conditions and the study is made or the control is exercised over the observer. Detialed observation plan, observation schedue, life of control group, use of hypothesis, use of mechanical appliances are some of the control devices used in controlled observation.

6) Non-controlled observations :

The observation is made in the natural surroundings and the activities are performed in their usual course without being influenced or guided by any external force is known as controlled observatio. In this observation the observer visit the place of occurence of phenomena in order to observe. For instance study of slum conditions and there is no planning on the basis of which observation is made.

ADVANTAGES OF OBSERVATION METHOD :

Observation method is used extensively in social and business research, besides their suitability in naturtal sciences due to the following advantages.

1. Simplicity :

It is simple and non technical and requires relatively less training to become a trained observer.

2. Direct and realistic study :

It is the most direct means of studying a wide variety of phenomena based on actual and first hand experience. There are many aspects of human behaviour which can be studied satisfactory.

3. Useful for formulating and testing of hypothesis :

This method enables a researcher to know about the sequences and the cause and effect relationship. It enables him to formulate hypothesis also.

4. Greater accuracy and reliability of data :

The data collected under this method are more accurate and reliable because they are based on first hand perception by the eyes.

Results are more dependable and convicing as they are based on first hand information.

Limitations of observation methods :

Observation method, even though is used widely in social science research it is not free from limitations.

1. It is often impossible to anticipate the occurence of an event precisely and hence presence of observer at the place is difficult.
2. It is not suitable to research studies like study of life history, private behaviour etc.,
3. Interference of unforeseen factors may affect the observation.
4. Observations data cannot be qualified. However this criticisam does not hold good now a days.

3.5 EXPERIMENTAION METHODS :

Experimentation is a research process used to study the casual relationship between variable. It aims at studying the effect of an independent variable on a dependent variable; by keeping the other independent variable constant through some type of control. For example keeping other factors constant a producer may spend more on advertisement and find the effect of advertisement on sale.

Various kinds of designs such as after - only design before - after design are used for experimentation. We have studied already about this in Research Design chapter.

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Evalutaion of Experimental Method :

Experimentation has some specific advantages and disadvantages.

The advantages are :

1. Its power to determine casual relationships between variables surpasses that of all other methods. The influence of extraneous variables can be more effectively controlled in this method.
2. The element of human error is reduced to the minimum.
3. More conditions may be created and tested in experimentation than may be possible in other methods.
4. Experimentation yields generally exact measurements and can be repeated for verifying results.

The Disadvantages : It is difficult to establish comparable control and experimetnal groups.

Secondly, the scope for experimentation with human beings is extremely limited.

Thirdly, experiment is often difficult todesign, tends to be expensive and time consuming.

Fourthly, it is artificial to some extent and may lack realism.

Fifthly, experimentation can be sued only in studies of the present but not in studies relating to past or future.

Sixthly, it is of no use in determining opinions, motives and intentions of persons.

Finanlly, the results observed may not be the true effects of the experimental treatment, but may be artifacts, i.e., effects of some extraneous variables. For instance, experimenter may unwillingly influence his subjects to behave in ways that confirm the hyopthesis, particularly if the subjects wnat to please the experimenter. Laboratory experiment is especially vulnerable to such artifacts when subjects know they are being studied and want to create a good impression.

3.6 TELEPHONE INTERVIEWING

Telephone interviewing is a non-personal method of data collection. It may be used as a method or supplementary method.

Uses : It will be useful in the following situations :

1. When the universe composed of those peersons whose names are listed in telephone directories, e.g., business houses, business executives, doctors, other professionals.
2. When the study requires responses to five or six simple questions, e.g., Radio or Televesion programme survey.
3. When the survey must be conducted in a very shor period of time, provided the units of study are listed in telephone directory..
4. When the subject is interesting or important to respondents, e.g., A survey relating to trade conducted by a trade association or a chamber of commerce, a survey relating to a professions conducted by the concerned professional association.
5. When the respondents are widely scattered and when there are many call backs to make.

Evaluation : Advantages : The advantages of telephone interview are :

1. The survey can be completed at very low cost, because telephone survey does not involve travel time and cost and all calls can be made from a single location.
2. Information can be collected in a short period of time, 5 to 10 interview can be conducted per hour.
3. Qualify of response is good, because interviewer bias is reduced as there is no face - to - face contact between the interviewer and the respondent.
4. This method of interviewing is less demainding upon the interviewer.
5. It does not involve field work.
6. Individuals who could not be reachced or who might not care to be interviewed personally canbe contaced easily.

Disadvantages : Telephone interview has several limitations.

1. It is limited to persons with listed telephones. The sample will be distorted, if the universe includes persons not on phone. In several countries like India only a few persons have phone facility and that too in urban areas only. Telephone facility is very rare in rural areas. Hence the method is not useful for studying the general popullation.

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2. There is a limit to the length of interview. Usually, a call cannot last over five minutes. Only five of six simple questions can be asked. Hence telephone cannot be used for a longer questionnaire.

3. The type of information to be collected is limited to what can be given in simple, short answers of a few words. Hence telephone is not suitable for complex surveys, and there is not possibility of obtaining detailed information.

4. If the questions cover personal matters, most respondnets will not cooperate with in interviewer.

5. The respondent's chracteristics and environment cannot be observed.

6. It is possible to use visual aids like charts, maps, illustrations or complex scales

7. It is rather difficult to establish rapport between the respondent and the inter viewer.

8. There is no possibility to ensure the identity of the interviewer and to overcome suspicions.

3.7 INTERVIEW :

The interview is probably man's oldest and most often used device for obtaining information. It is a 'meeting' in which the interviewer puts questions to the interviewee and records his responses. The meeting is always face - to - face where both the parties communicate with each other not only through words (verbal interaction) but also through gestures, mannerisms, facial expressions, etc (visual interaction).

All interviews are pseudo - conversational in nature. This means that they are conversations "with a purpose"[6] where the interviewer's aim is to elicit as much relevant information as is possible within a specified time.

Types of Interviews :

On the basis of the degree of structure present in the quetions asked by the inteviewer all interviews may be classified into three categories : standardised, unstandardised and semi-standardised.

(1) Standardised, Structured or Formal Interview :

In this type of interview, the quetion and their sequence are determined in advance. The interviwer merely proceeds systematically through the list of

questions, noting the replies given by the applicant. He is not free to adapt this questions to the specific situation or to change their wordings or to change their sequence or to ask other questions. In brief, he is supposed to keep his behaviour as constant from interviewee to interviewee as is possible. Such type of interview is highly useful in market or polling research in which the same questions in the same form and in the same order are asked of very respondent.

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Mertits :

(1) This type of interview enables other investigatores to duplicate the interview situation and to verify the results of previous intervies.

(2) This type of interview is more economical because by forcing the interviewer to move on a fixed tract it results into a wider coverage of respondents in the same time.

3) This type of interview demands lesser skills of the interviewer.

4) This type of interview by forcing the respondent to answer spontaneously without too much meditation acts as a check on fabircation.

Demerits :

This type of interview, by permitting little flexibility to the interviewer, prevents him from going into depth and exploring other avenues of information which may appear to him as fruitful during the interview. In fact, some people argue that to restrict the flexibility of the interviewer involves sacrificing the basic inter-personal advantage that the interview has over other data collection techniques, and the one might just as well scrap the interview and substitute a paper - and - pencil questionnarie if it is structure that is desired.

(2) Unstandardised, Unstrctured or Informal Interview :

In this type of interview the interviewer is free to develop each situation in whatever ways he deems most appropriate for the purpose at hand. He can be quite flexible in adapting his approach to whatever appears to be most frutiful for agiven respondent. He may change his general line of questioning if important results are not forthcoming or he may alter the wording the questions so as to achieve some equivalence in meaning for different kinds of respondents or he may omit certain questions and add new ones, and so on.

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concepts, brand names, packages, promotional strategies and attitudes. When an organisation needs a great variety of information in as much detail as possible at a relativelly low cost and in a short period of time, the group interview technique is more useful. It can be used to generate primary data in the exploratory phase of project.

Evaluation : Advantages : The advantages of this technique are :

1. The respondents comment freely and in detail.
2. The method is highly flexible. The flexibility helps the research work with new concepts or topics which have not been previously investigated.
3. Visual aids can be used.
4. A group can be interviewd in the time required for one personal interview.
5. The client can watch the interview unobserved.
6. Respondents are more articulate in a group than in the individual interview.
7. The technique eliminates the physical limitations inherent in individual interviews.

Disadvantages : This method is not free from drawbacks.

1. It is difficult to get a representative sample.
2. There is the possibility of the group being dominated by one individual.
3. The respondnets may answer to please the interviewer or the other members in the group.

Nevertheless, the advantages of this technique outweigh the disadvantages and the technique is found to be useful for surveys on topics of common interest.

Advantages and Limitations of Interview Technique

Advantages

(1) Interview technique can be used with illiterate respondents

(2) Proportion of the respondnets participating in an interview is generally more than the proporation of respondents who return a mall questionnaire.

(3) The information secured through an interview is likely to be more correct than that secured by a mall questionnaire. This is because the interviewer can point out the inconsistencies in replies on the spot and correct them. In

In this type of interview, the interviewer asks a number of specific major questions but he is also free to probe beyond the answers to these questions. One such interview is the focused interview. In this interview the interviewer, though bound by a definite framework of topics to be covered about each respondent, is more or less free to frame his questions and to decide their sequence according to this understanding of the situation. The respondents in this type of interview are always persons who are known to possess the experience of the subject under study. Thus, for example, if opinion is being gathered about a film or a broadcast they are the persons who have seen the film or have heard the broadcast. The interview is always focused on the subjective experience of such persons.

3.7 INTERVIEW :
Types of Interviews :
1. Standardised, Structured or Formal Intervie,
2. Unstandardised Unstrctured or Informal Interview
3. Semi - standardised, Semi-structrued Interview
4. Group Interviews
Advantages and Limitations of Interview Technique
Advantages

(4) Group Interviews :

Meaning and Nature : A group interview may be defined as a method of collecting primay data in which a number of individuals with a common interest interact with each other. In a personal interview, the flow of information is multidimensional.

The group may consist of about six to eight individuals with a common interest. The interviewer acts as the discussion leader. Free discussion is encouraged on some aspect of the subject under study. The discussion leader stimulates the group members to interact with each other.

The desired information may be obtained through self - administered questionnaires or interview, with the discussion serving as a guide to ensure consideration of the areas of concern. In particular, the interviewr looks for evidence of common elements of attitudes, beliefts, intentions and opinions among individuals in the group. At the same time, he must be aware that a single comment by a member can provide important insight.

Samples for group interview can be obtained through scools, clubs and other organized groups.

Uses : The group interview technique can be employed by researchers in studying peoples reactions on public amenities, public health projects, welfare schemes, etc. It is a popular method in marketing research to evaluate new product or service

in studies relating to socio-psychological or sensitivie subjects such as divorce or use of birth control methods the indepth probing cannot be done by simply putting a certain number of predetermine d questions in a predetermined sequence. An unstructured interview is the only technique to enable the interviewer to penetrate deep into the problem and to know about the ingrained attitudes and beliefs of the respondent. In such interviews the interviews the interviewer begins with some genral topical question and then gradually and skilfully leads the respondent toward his subject of enquiry.

One form of the unstructured interview is the non-directive interview. Herethe interviewer avoids channeling the interview in certain directions. Instead, he attempts to develop a very permissve atmosphere in which the respondent can feel perfectly free to express his felling without fear of disapproval. Thus, in the interviewing phase of the Hawthome research, the interviewers attempted to refrain from any guiding comments or questions at all. Instead, they simly listened, with a judicious "Hmmm", or an interested "Go on", or a similiar comment - at times, no more than a gesture of sympathy. In this way, the workers returned again and again to topics which have close to their personal lives.

Merits :

(1) In this type of interview a skilled interviewer is able to develop new ideas about the phenomena under invetigation. He is able to exploremeany new ideas and can go considerably beyond the original formulation of the problem.

(2) This type of interview generlly leaves a favourable impression on the interviewee because by giving an oppotunity to the interviewee to speak freely it relieves his tensions and clarifies his thinking.

Demerits :

(1) The collection of data by this method is very slow. Only a small number of interviews can be completed in a given period.

(2) Analysis of all sorts of responses is difficult and time - consuming.

(3) This type of interview needs a very high level of interviewing quality. The greater the discertion allowed to the interviewer, the more necessary is a high level of competence.

(4) This type of interview cannot be replicated and its results cannot be generalised for large populations.

case of deliberate lies he can probe deeper to find out the truth and can observe and record details or interviewee's behaviour (nervousness, hesitation, etc) in responding. He can also clarify certain questions which the interviewers does not fully understand.

(4) Discussion on sensitive and emotional subjects can be better approached by an unstructured interview than by any technique.

(5) In an interview the respondent is generally caught off guard which enables the interviewer to observe his spontaneous reactions (facial expression, gestures, etc). to the questions put to him- an advantag not availale in the case of mall questionnaire.

(6) The interview sometime proves to be such stimulating experience to a respondent that he willingly offers a lot of information which may not be forthcoming in other techniques.

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Limitations :

(1) The interview is generally more costly than other techniques.

(2) The organisation required for selecting, trainig and supervising a field staff is more complex than that needed in other techinques. The training of intervieweres is often a long and costly process. The more non-directive the interview, the greatr the need for highly skilled interviewers.

(3) The interviewer may suffer from bias, faulty perception, faulty memory, lack of insight and inability to articulate. He may, while explaining the import of a question, put words in the mouth of respondent or change the whole context of question.

(4) The interviewer may (because of fatigue, decreased task interest, etc.) alter other manner in which questions are put to interviewees or the sicerity it which responses are recorded from one interview to the next, etc. As a consequence, the validity and reliability of obtained data may suffer.

(5) Charactereistics of the interviewer,the interviewee (e.g., sex,race, socio-economic status, etc.) and their combination may influence the measured viaribles.

(6) The interview, even if it is of the non-directive vareity, may not lead to as through an understanding of the phenomenon under investigation as alternative data collection techniques (e.g., participant observation).

3.8. PROJECTIVE TECHNIQUES

We have so far considered techniques that rely on the individual's own report of his behaviour, beliefs, feelings, etc. These tecniques pre-suppose that the respondents are willing and able to give such information about themselves. There is also the possibility that the respondents are unwilling to discuss controversial topics or to give the desired information either because they cannot express their feelings in exact words or because they are not quite aware of their feelings about the matter in question.

To get the desired data despite the respondent's lack of self-insight or his unwillingness several indirect techniques have been developed. These techniques are designed to provide the respondent with unstructured stimulus situations. It is assumed that because the stimuli are unstructured the respondents will be required to organise or structure them and will, in the process, reveal important aspects of their own personality and behaviour.

In these techniques the true nature of subject-matter is so concealed that the respondent is not aware of its import nor of the purpose of the study. The correct interpretation of results largely depends on the user's trained judgement and discretion. He must be able to distinguish the relevant part of the results from the irrelevant-the grain from the chaff. The standardization and cross-cultural validation of these techniques are now slowly coming up.

There is a wide variety of these techniques as described below:

(a) Rorschach ink blot test. This test was first developed by a Swiss scientist Herman Rorschahch. Under this test ten cards with ink blots printed on them are shown to a respondent and from his interpretations of these blots inferences are drawn regarding his beliefs, feelings, attitudes, perceptions and underlying motivations.

(b) Sentence completion test. In this technique the respondent is presented with the beginning of a series of sentences as a stimulus and he is required to complete these sentences.

(c) Word association test. Here the stimulus questions usually consist of single word or a short phrase. The respondent is asked to respond with the fir

word that comes to his mind. For example, if the stimulus word is "black" the subject may respond immediately by saying 'white' or 'Negro' or some other word. The content as also the rate of the subject's response may indicate his areas of emotional distrubance.

(d) Role playing. This technique is called a psychodrama if the respondent plays himself and sociodrama if he acts out the roles of others. Here the respondent is removed from the paper-and-pencil situation, and has relatively little time to prepare an answer he thinks would have social desirability. If the interviewer himself adopts a role which complements that adopted by the respondent, he has oppourtunity of subjecting the respondent to sequences of stimuli and of investigating the dynamics of his behaviour.

(e) Thematic appereption test (TAT). This test consists of a series of pictures dealing with the ordinary day-to day or extraordinary events. The subjects' are asked to tell stories on the basis of these pictures. On the assumption that through these stories subjects project their personalities, these stories are interpreted by trained psychologists.

(f) Error choice and information test. In the error choice method respondents are asked to choose among different possible answers to a factual question (such as, "what is the salary of the average psychiatrist?") All the answers provided are incorrect, and the direction of the eror a respondent makes is used as a measure of his values, attitudes, or expectations. Another relatively structured indirect test is the information an individual possesses about a given subject are related to his values and expectations. Consequently, information questions may be utilized as indirect measures of these dimensions.

It should be remembered that evidence on the validity of these projective techniques thus for is not at all conclusive. The response may be interpreted differently by different experts. Despite this drawback, these techniques are very useful in as much as they encourage free response by the individual mirroring his attitudes and feelings which may not be possible in other techniques.

Advantages:

These techniques divert individual's attention away from himself and thus reduce embarrassment and defensiveness. They are especially useful with young children, illiterates and persons with language handicaps.

Limitations:

(1) Many of these techniques lack standardisation in the adminsitration and scoring producers. Thus, the results obtained by different researchers may not be comparable.

(2) Many techniques show spurious relationships and give only an illusion of validity.

(3) Some techniques also lack reliablity. Interpretations of identical data developed by them by different experts do not always agree.

3.9. SECONDARY DATA :

Secondary data are those data or information collected from the secondary sources. Secondary sources may both internal as well as exernal in character. The internal sources refers to the information that already exist within the company or unit studied. For example records of sales, budget, stock etc. The external sources refers to publication of govt. commercial agencies etc.

Sources: It can be divided into two 1) Published source 2) Unpulished source

1) Published Sources:

Data which are published and available for public easily is called published sources.

1. Reports and publication of international body like I.M.F., U.N.O.etc..
2. Publication of central and state govts. like census book, statistical book etc.
3. Publication of Reserve Bank of India, Banks etc.
4. Financial and economic journals like capital, commerce, Economic Times etc.
5. Publication of research institutes like IESSR etc.
6. Annual Reports of joint stock companies and social organisations etc.

2) Unpublished Sources:

There are sources of informations which are not published but available for reference. For examples records of govt. Orgnisations companies, Theses, dissertatios, project reports of research centres etc.

Uses of secondary data:

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The secondary dat may be used in three ways by a researcher. First, some specific information form secondary sources may be used for reference purposes. For example, the general statistical information on the number of cooperative credit societies in the country. their coverage of villages, their capital structure, volume of business, etc. may be taken form published reports and quoted as a background information in a study on the evaluation of performance of cooperative credit societies in a selected district/state.

Second, secondary data may be used as bench marks against which the finding of a research may be tested, e.g., the findings of a local or regional survey may be compared with the national averages; the performance indicators of a particular bank may be tested against the corresponding indicators of the banking industry as a whole and so on.

Finally, secondary data may be used as the sole source of information for a research project. Such studies as Securities Market Behaviour, Financial Analysis of Companies, Trends in credit allocation in commerical banks, Sociological Studies on crimes, historical studies, and the like depend primarily on secondary data. Year book, Statistical reportsof government departments, reports of public organisations like Bureau of Public Enterprises, Census Reports etc. serve as major data sources for such research studies,

Advantages of secondarv data:

Secondary sources have some advantages.

1. Secondary data, if available, can be secured quickly and cheaply. Once their source documents and reports are located, collection of data is just a matter of desk work. Even the tediousness of copying the data from the source can now be avoided, thanks to xeroxing facilities.

2. Wider geographical area and longer reference period may be covered without much cost. Thus the use of secondary data extends the researcher's space and time reach.

3. The use of secondary data broadens the data base from which scientific generalizations can be made. This is especially so when data from several environmental and cultural settings are required for the study.

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4. The use of secondary data enables a researcher to verify the findings based on primary data. It readily meets the need for additional empirical support. The researcher need not await the time when additional primary data can be collected.

Disadvantages/limitations of secondary data:

The use of secondary data has its own limitations.

1. The most important limitation is the available data may not meet our specific research needs. The definitions adopted by those who collected those data may be different; units of measure may not match; and time periods may also the different.

2. The available data may not be as accurate as desired. To assess their accuracy we need to know how the data were collected.

3. The secondary data are not upto date and become obsolete when they appear in print, because of time lag in producing them. For example, Population Census data are published two or three years later after compilation, and no new figures will be available for another ten years.

4. Finally information about the whereabouts of sources may not be available to all scoial scientists. Even if the location of the source is known, the accessibility depends primarily on proximity. For example, most of the unpublished offical records and compilations are located in the capital city, and they are not within the easy reach of researchers based in for off places.

3.10 KEY TERMS

- Schedule
- Demerits
- Questionnaire
- Personal
- Flexibility

3.11 SUMMARY

Source of Information, Questionaire Method, Observation, Experimentation Methods, Telephone Interviewing, Interview, Projective Techniques, Secondary Data are dealt in details in this unit.

3.12 MODEL QUESTIONS:

Part - A

1. What are the various kinds of questionnaire?
2. What are the different methods primary data collection?
3. How secondary data differ from primary data demerits?
4. What is an interview? Highlight its advantages and disadvantages.
5. Explain the guilding considerations in the construction of a questionnaire.

Part - B

1. How does a questionnaire differe from a schedule? What are the marits and demerits of a questionnaire?
2. What is a projective technique? what are its limitations?
3. How can observation methods be classlied? What are the key destinctions among the various types?
4. What is an interview? How is it classified? What are its major objectives?
5. Discuss the sources of collecting secondary data.
6. How do mail, telephone and personal interview differ in terms of costs administrative control and flexibility?
7. What are the problem faced in collected data through an interview? How are they caused? How are they removed?

NOTE

Unit - 1

True - Fals

1. The researc to determine tl sources from w he will get this information.

True / Fals

2. primary dat to informatioi generated to i specific reqire of the investi hand.

True / False

3. Under this list of questio Called questic is prepared ar to the respon

True / False

4. Questionna list of questio framed in a dei order or form.

True / False

5. Observatioi of the methods employed in cc tion at primary

True / False

Answer

1. True 2.
3. True 4.
5. True

NOTES

UNIT IV ATTITUDE MEASUREMENT AND SCALING TECHNIQUES

STUCTURE

4.0 Introduction
4.1 Unit Objectives
4.2 Concepts
4.3 Definition
4.4 Meaning and difinition of attitude
4.5 Types of Scales
4.6 Key Terms
4.7 Summary
4.8 Model Questions

4.0 INTRODUCTION

Moderate marketing is the era of consumers. Satisfication of the needs of the consumers is the prime airm of any business. Hence the research on consumer behaviour gives emphasis to attitude measurement of the consumers companies are interested in knowing their corporate image their product image and to know how far these images are favourable or unfavourable in the minds of consumers.

Reserarches give importance to the measurement of primary attituds. These attitudes of different groups can be measured through scaling technique. Attitudes of the following groups towards companies products advertising etc. ii) employees attitudes for example salesman attitude towards their jobs iii) Businessman's attitudes such as co-attitude of company's management dealers, wholesaler, brokers etc. towards their business activity.

4.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

Concepts

*   Definition
*   Meaning and difinition of attitude
*   Types of Scales

of Attitude Measurement and Scaling Techniques.

4.2. CONCEPTS:

Measurement:

Measurement may be defined as the assignment of numerals to characteristics of object, persons, states or events according to rules when objects are counted, for example, one does not measue the object itself but only its characteristics of being present. One does not measure people but their age, height, weight or some other characteristics.

The term measurement refers to obtaining symbol to represent properties of object, events or states. These obtained symbols have the same relevant relationship to each other as do the things which are represented by them.

Scaling Techniques:

A scale is a method of measurement. Attitudes, behaviour and other qualitative characteristics are measured by means of different scales. The scalability of a phenomenon depends on its continum. The various factors of the phenomenon must be logically interrelated and should be capable of continued measurement. A scale must be reliable.

4.3.DEFINITION:

Goode & Hatt has defined it as follows:

They are methods of turning a series of qualitatives facts (referred to as attributes) into a qualitative series (referred to as a variable).

Under the scaling method a respondent is asked to choose the opinions already coded. His order of perference is weighed and importance of opinion is measured statistially. Opinion to a single question may not form an opinion to a total picture. Many questions are asked and the opinions are averaged and measured.

The purpose of averaging over a set of beliefs is to reduce the effects of idiosyncracies of particular respondents in respect of particular aspects of the attitude the set of statements for ascertaining beliefs must be chosen with this in mind.

4.4. MEANING AND DEFINITION OF ATTITUDE:

An attitude is a behavioural desposition which is part of the structure of human perception. Attitude are the most complex concept and differen to understand. But it is most used socio-psycological concept in marketing.

Henry C.Triandie, has defined it as follows:

"An enduring organisation of motivational emotions, perceptual and congnitive process with respect to some aspects of the individual s world".

The term attitude has three components in it:

a) Cognitive-a person's belief or information about the object.

b) effective: a person's feeling like or dislike concerning the object and

c) behavioural-action tendencies or pre-disposition toward the object.

Each of these three components tends to remain in balance with the other two.

4.5. TYPES OF SCALES:

There are the following four main types of scale - nominal, ordinal, interview and ratio scale.

a) Nominal Scale:

It classifies persons objects or events into a number of mutually exclusive categories on the basis of simple presence or absence, applicability or inapplicability possession or non possession of certain character or property. For example classification on the basis of sex or religion or caste etc. The member of these categories differ with respect to the specied attributes which is being measured. The only arithmatic operation possible in this scale is counting. Say for example number of female are more than male in Keral or Female constitutes 53% of the population.

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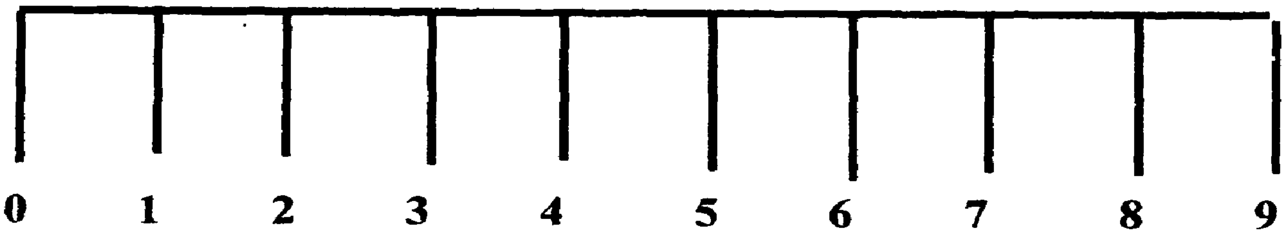
b) Ordinal Scale:

In this type of scale number for example 1,2,3.....etc. are assigned to indicate only the relative position. The scale purports to give ranks to the indivitual along with specific continum. It determines the order of position in relation to the attributes which is being measured. It does not provide or cardinally measures the differences between persons. For example X is beautiful than Y but can not say how much.

c) Internal scale or cardinal scale:

This scale has equal units of measurement. It indicates the level of difference between two persons unlike ordinal scale.

For example if we are measuring the achivement of four students, A,B,C and D on an internal scale and obtain the value 1,4,5 and 8 respectively.



By comparison one can say the diference between A and C is same as the difference between B and D. But one can not say that the achievement of D is twice that of B. Because in the measurement @ point 'O' is arbitrary. Hence objects can not be compared on the basis of ratios of their absolute scores. It can be explained with the measurement of Fahrenheit and Centigrade.

Centigrade	0	10	30	10
Fohrenheit	32	53	86	21

The point of origun in centigrade is o end that of fohrenheit is 32 Hence of one take two temperature from fohrenheit scale namely 20^0 F and 40^0 F one cannot say that his first temperatue is half his second one.

d) Ratio Scale:

This scale incorporated the properties of an internal scale together with a fixed origin or zero point. Weight length and time are example of it. These scales are

used. For example if Salesman A sells 50 units per day and salesman B sells 100 units per day then B's output is twice that of A.

SPECIIFIC SCALES FOR MEASURING ATTITUDES:

When an individual is asked to indicate his attitude accurately on a scale he has to make judgement in different situations. In order to overcome the difficulties in this self-assessment, indirect approaches with a series of statements, concerning attitude measurements were developed. Thus the specific attitude scale is one which contains a number of statements relating to attitude in question. Let us discuss few important scales measuring attitudes as follows:

a) Thurstone Differential Scale:

It was invented by L.L.Thurstone. It is also called as "Thurstone equal appearing intervals". The main assumption underlying the scale is that people could not assign quantitative measurement to their attitude. But they could tell differences between attitudes represented by two different statements.

A large number of statements relating to attitude are collected by the researcher. A large number of judges classifies them into eleven groups. Then statements which are ambigious vague irrelevant and over which judges differe orderly are discarded. Finally one statement from each group are selected. The list is prepared in a manner that the first group consist of statement favouring to the attitude and the last group is most unfabourable. The sixth position on this continum is the point at which the attitude is neutral. The scale value of a statement is conputed as the mean or median position to which it is assigned by the judges. Then the respondents are asked to check the statements which they agree. The scale value are not shown in the questionnaire and the statements are arranged randomly.

It can be explained by the following example. This scale was used to measure the consumer attitude towards newspaper advertisement.

1. All newspaper ads should be banned by law.

2. Reading newspaper ads is a complete wastage of time.

NOTE

3. Newspaper ads are monotonous.

4. Most of the newspaper ads are pretty bad.

5. Newspaper ads do not interface too much with the reading of news.

6. I have no opinion for or against the newspaper ads.

7. I like newspaper ads at time.

8. Most newspaper ads are faily interesting.

9. I like to buy products advertised in newspapers whenever possible.

10. Most newspaper ads help people select the best product available.

11. Newspaper ads are more fun to read than the regular news items.

Sources: Dr.D.D.Sharma Marketing Research principles Application & cases, Sultan Chand & Sons P.175

Assignment value by the judges are as follows:

Statement	1-7.2	Statement	7-3.0
Statement	2-8.6	Statement	8-2.0
Statement	3-2.6	Statement	9-6.2
Statement	4-7.1	Statement	10-5.0
Statement	5-4.0	Statement	11-4.3
Statement	6-1.8		

Suppose respondent A chose statement 3,6,7 means his average scor would be 2.6+1.8 +3.0 or 2.47. If B chooses statements 3,4,5 and 7, his average score would be 2.6+7.1+4.0+3.0 or 4.2. Thus respondent 'A' would be ranked higher (lower the number the more positive the attitude) than B in terms his attitude towards newspaper ads (ordinal scalling).

Criticisms:

Criticisms against this Thurstone scale are as follows:

a) The scale values are influenced by the attitudes intelligence and background of the judges.

NOTES

4.5. TYPES OF SCALES:
a) Nominal Scale,
b) Ordinal Scale,
c) Internal scale or cardinal scale,
d) Ratio Scale,
SPECIFIC SCALES FOR MEASURING ATTITUDES:
a) Thurstone Differential Scale,
b) Likert's Summated Scal,
c)Guttman Scale,
d) Q-Sort,
e) Semantic Differential f) Stapel Scale

b) Difficulty arise in selecting the statements and to form conatinuum.

c) Different individual may have the same score on the basis of mean or median but still their attitudes may not be similar.

b) Likert's Summated Scale:

This scale is frequently used in the measurement of social attitude and it was first devised by Likert. It uses only definitely favourable and unfavourable statements. It excludes the intermediate opinions. It consists of a series of statements to which the respondent is to react. The respondent indicate the degree of agreement or disagreement. Each response is iven a numerical score and the total score of a respondent is found out by summing up his different score for different responses. This total score indicates his position on the continuum.

It uses several degrees of agreement ro disagreement. They are strongly agee, agree, indifferent, disagree, strongly disagree and they give point 5 to 1 respectively or vice versa. The score values are not indicated in the questionnaire. By adding up the different scores of an individual, his total score is calculated as summation of different scores for different statements. The researcher should identify the claims which have a high discriminatory power. The main idea is to ensure that every item or statement is related to the atitude which is under study.

Criticisms:

a) The total scores may be the same in many cses but their attitudes may be different.

b) This scale may order the people but the order may not be scientific.

c) There is no objective basis for expressing different degrees of agreement or disagreement.

c)Guttman Scale:

This is a scalogram technique developed by Louis Guttman. The respondents are presented with a series of items, generally statements about a product o product attributes and are asked to indicate their degree of disagreement or dis agreement with each item. The primary goal of the technique is to determine whethe a cumulative and undimensional scale is being achieved.

For example is we ask respondents to agree or disagree with the following statements. We would achieve the indicated response.

		A	B	C	D	E
A	I am over 20 years	X	X	X	X	X
B	I am over 30 years		X	X	X	X
C	I am over 40 years			X	X	X
D	I am over 50 years				X	X
E	I am over 60 years					X

Any one over 60 must, of necessity, be over 50,40,30,20. Likewise anyone over 40 must also be over 30 and 20 and so on. Age is a undimensional phenomenon it involves one and only one factor. To determine whether or not a series of attitude statement measure only one dimension of an attitude, the response of a sample are arrayed as shown. It must of the responses fit the pattern, a undimensional scale exists.

d) Q-Sort:

It is used for the study of personality. The individual can make a study of changes in his own image or in his ideal person and so o. It is also applied for study of various type of socio economic attitude. The basic operation of Q-sort method are similar to those of the Thurstone scale. But the objectives of sorting are different.

It is an efficient ordering process. It requires the respondent to sort, that is, to divide into piles or groups, a number of statements or other objects according to a specied criterion. First the researcher must select the criterion along which the items are to be sorted. For example the criteria is "Most like/least like my present brand". The second step is to select the specific item for sorting. For example for product research include stylish economical, functional etc. Thirdly the respondent is instructed to sort the items into 11 groups or piles placing a specific number in each group.

NOTES

Divide the 100 items on the cards into 11 groups so that they will describe your view of an ideal cake mix.

Most like	Group	Group	Group	Least
MG Ideal	1	2	11	like
Cake mix	2,7,8,11	17,16,15	9,4,3	Myldeer Mix

Lastly the items are assigned the score of the group, they are placed in and are analysed by special correlation technique.

e) Semantic Differential:

Charles Os good, developed this scale Semantic Differential. It is used to measure attitudes pertaining to brand and company image. It stresses on the development of descriptive profiles that facilitate comparison of competitive items.

The respondent is asked to rate a given concept on a series of seven point bipolar rating scale. Two ends will use adjectivers which are opposite. For example good-bad, reliable-unreliable, convenient-inconvenient etc.

	1	2	3	4	5	6	7	
Good	---	---	---	---	---	---	---	Bad
Converent	---	---	---	---	---	---	---	Inconvenient
Reliance	---	---	---	---	---	---	---	Unreliance

Respondents are asked to go through a set of scales for a particular concept and to place a check-mark is one of the spaces on each scale to indicate their rating of the conceps position with respect to the adjectives involved. The positions are then assigned scores 1 to 7 Osgood and others have investigated the correlations between the scores given to set concept on different bipolar scale by conducting a series of factor analysis. The three main factors are the individual's evaluation of the concept power of the object or potency and the individuals perception of the activity of the object or concept.

f) Stapel Scale:

The original Staple scale was described as a unipolar ten point non verbal

rating scale with values ranging from +5 to -5 which measures direction and intensity simultaneously. The scale values are used to indicate how accurately one adjective describes the concept in question.

The advantages of this technique lie in the case of administration and the absence of any need to pretest the adjectives or phrases to ensure true bipolarity. The ability of Stapel scale to produce results equivalent to those produced by the Semantic Differential has been verified emperically. This scale has been utilised in studies ocussing on departmental store images, new food products and advertising copies.

4.6 KEY TERMS

* Numerical
* Semantic
* Interpret
* Dimensional

4.7 SUMMARY

Concepts, Definition, Meaning and difinition of attitude, Types of Scales of Attitude Measurment and Scaling Techniques are dealt in details in this unit.

4.8 MODEL QUESTIONS:

Part - A

1. Describe how Likert scale is constructed.
2. State the merits of Lidert's scale.
3. How will you construct Thurstone's scale.
4. What the limitations of Thurstone's Scale?

NOTES

<u>**Unit - IV**</u>

True - False

1.Moderate marketing is the era of consumers. True / False 2.When an individual is asked to indicate his attitude accrately on a scale he has to make judgement in different situations.

True / False

3. The primary goal of technique is to determine whether a cumulative and undimensional sacale is being achieved.

True / False

4. Stresses on the developement of descriptive profiles that facilitate comparison of competitive items.

True / False

5. Respondents are asked to go through a set of scales for a particular concept and to place a checkmark. True / False

Answer.

1. True 2. True

3. True 4. True

5. True

5. Write short notes on:

i) Multi dimensional scaling

ii) Stapel scale

iii) Guttman scale

iv) Semantic differential

Part - B

1. What is a scale? Highlight various types of numerical scale. Whether these scales can be used in marketing?
2. Explain the method of semantic differential. How the data gathered by this scale is interpreted?
3. What is meant by the realiability and validity of a measurement? Describe the various techniques available to assess each.
4. Discuss the various types of scale with their merits and demerits
5. Differentiate between Thurston differential and Q-sort scaling techniques.
6. Describe different versions of rating scales with suitable examples.
7. What is a scale? Highlight various types of numerical scales. Whether these scales find use in marketing.

LESSON - V SAMPLING TECHNIQUES

STRUCTURE

5.0 Introduction
5.1 Unit Objectives
5.2 Sampling Techniques
5.3 Need for sampling
5.4 Characteristics of good sampling
5.5 Steps in sampling or process in sampling
5.6 Types/Methods of sampling
5.7 Advantages of sampling
5.8 Disadvantages/Limitations of sampling
5.9 Key Terms
5.10 Summary
5.11 Model Questions

5.0 INTRODCUTION

Collection of data is essential in marketing research. Data are divided basically into primary data and secondary data. Primary data refers to collection of data for an investigation by the researcher. Such data are collected either by census method or sampling method. The census method involves a complete enumeration of all the units of the population or universe whereas the sampling method involes the enumeration of only a smple part of the population or univere.

A sample is a smaller representation of a large unit or value. A sample is that part of the universe or population which we select for the purpose of investigation. For example one test few rices to ensure that all the rices are boiled or not in a vessel. A doctor test a drop of blood to conclude the blood constitution of a body.

5.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

Sampling Techniques

NOTES

* N ed for sampling
* Characteristics of good sampling
* Steps in sampling or process in sampling
* Types/Methods of sampling
* Advantages of sampling
* Disadvantages/Limitations of sampling

5.2 SAMPLING TECHNIQUE:

The process of selecting a sample is called sampling technique. There are various method to select a sample. Nature of the problem. size and character of the universe. Observation of the investigation decides the method.

5.3. NEED FOR SAMPLING:

In marketing research and other social science research the sampling technique is widely used. It is because of the following needs.

1. When the universe or population is compies and large, it will require a great deal of time money and energy. So it is unwise when the resources are scarce
2. When the problem does not require can percent accuracy sampling is cheap and the bes
3. If the data are unlimited one need to use sampling.
4. When there is no possiblity of conducting census method sampling is the only solution.
5. When the characters of the units are homogeneous sampling is the best choice

5.4. CHRACTERISTICS OF A GOOD SAMPLING:

A good marketing sample must have the following features.

1. It must be random. Random means everybody in the group has an equal chance to represent the group.
2. It must be representative. It means that the sample must include all important kinds of units in the total universe.
3. It must be proportional. The sample selected should contain various segments in the same proportion in which they appear in the whole lot.

For example in a college there are 500 boys and 300 girls are studying. We select samle to study about the brand choice of pen. Boys and girls in that sample should be in the ratio of 5:3.

4. It must be adequate larger the sample more than will be the accuracy.

5. It should be possible to measure or estimate the sampling error.

6. There should be unbiased selection of sample.

5.5. STEPS IN SAMPLING OR PROCESS IN SAMPLING:

The sampling process consists of seven sequential steps as listed below:

1. Defining the universe:

Definition of the universe is determined by the objectives of the study. The population is defined in terms of a)element b)units c) extent and d) time. For example, study of customer's behaviour in a bank, the population will be the number of account holders on a particular date in that bank.

2. Specifying sampling frame:

A frame is a list of the population. It consists of names and addresses. The various elements of population or universe are represented in the list or map or directory. For example to conduct a telephone interview, in a particular area, a list of subscribers of telephone in that area are taken from the directory.

3. Selection of sample design:

The next step will be the selection of sampling methods. The sampling may be probability sampling or non probability sampling. The choice of the method depends on the nature of the problem length of questionnaire, size of sample, degree of accuracy, sources of time and money etc.

4. Determining the sample size:

The next process will be determing the number of samples to be studied from the universe. While determining the size, the law of inertia of larger number i.e. larger the samples greater the accuracy, should be remembered. However, the other factors affecting the size are the availability of respondent, time and money etc.

NOTES

5. Selection of substitute sample units:

All the units selected for the sample will not participate. Hence this necessiates the substitution of sample members for non respondent.

6. Deciding the sample plan:

The plan or operational procedure for selecting the sampling units have to be decided.

7. Actual selection of sample:

The office and field work necessary for the selection of the sample are carried out.

5.6. TYPES/METHODS OF SAMPLING:

The various methods or techniques of sampling can be broadly classified into two types.

I. Probability or Random Sampling:

In probability sampling each unit in the universe has an equal chance of being included in the sample. These units are more or less general in character. The units are selected at random from the universe. Here the random does not mean haphazard. Because they are arranged and predetermined method of selection. So it is called random or equal probability sampling. Sample selected at random are representative of the universe. The random sampling is further classified into 1) Simple or unrestricted random sample 2) Restricted random sample.

1. Simple Random Sample:

It refers to the technique in which each unit of population has an equal chance of being included. Personal bias is eleminated in this method. Because he can not exercise his disretion in selection. No factor other than pure chance affect the likehood of an item being included in or execluded from the sample. This method is suitable for a small homogeneous population. The sample are obtained by using any one of the following methods.

a) Lottery Method b) Random number method

a) Lottery method:

The process of drawing a lot among the population. Each unit of the universe is given a serial number. The numbers are written on lots of paper which are pooled and shuffled. Then the required number of lots are picked up. This method is suitable to select small number of lots from a small universe.

b) Random number method:

Statisticians have prepared few random number tables for the selection of large number of samples from a large universe. Tippetts numbers Kendell and Babrington Smit number, Fister and Yate's numbers are few tables of them. Among them Tippet's numbers are very popular and it consists of 10400 sets of four digit random number.

This method can be explained with an example. If the investigator wants to select 100 names from the universe of 1000 names. Then give a number from 1 to 1000 to each person. Turn one page of Tippett's table and select numbers which are less than 1001. Then turn the next page and select numbers. Continue the process till the required numbers of samples are selected.

Merits:

1. There is no personal bias.
2. Simple to understand and select.
3. Probability theory can be used to measure precision.
4. Accuracy can easily be assessed because error follow the principle of chance.

Demerits:

1. It is tedious when the same size and universe is large.

2. Restricted Random Sampling:

Restricted random sampling can be further classified into a) Stralied sampling b) Cluster Sampling c) Systematic sampling.

NOTES

5.5. STEPS IN SAMPLING OR PROCESS IN SAMPLING:

1. Defining the universe,
2. Specifying sampling frame,
3. Selection of sample design,
4. Determining the sample size,
5. Selection of substitute sample units,
6. Deciding the sample plan,
7. Actual selection of sample

NOTES

a) Stralified sampling:

In this method, the population is divided into various strata or division. The population is hetrogeneious but the cents within the strata are homogeneous. Age, income, education, caste etc. are some of basis for satisfaction. Samples are drawn from each strata. This method can be divided further into two.

(i) Proportional stralified samples:

Under this method, the number of items drawn from each strata is proportional to the size of the strata in the universe. For example in a study o group of consumers, the universe is divided on the basis of age, say between 20-40 years and 41 to 60 years. They are in the proportion, for assumption, of 2:1 in the universe. Then sample size from each group should be in the ratio of 2:1.

(iii) Disproportional stralified sample:

In this sampling plan the number of units in each stralium is not proportional to its number in the universe. In the above example the sample size may be in the ratio of 1:1.

Merits:

1) It is more representative as it is drawn from each strata and no group is left out.
2) When the units within the strata are homogeneous, the result will be more accurate.
3) Stralified sample can be more concentrated geographically i.e. the units from different data may be selected from one area which reduces time and cost.

Demerits :

1. When the units in the strata are not homogeneous, sample will be biased.
2. Exports skill is required to select sample from each strata at random.
3. If the stralified sample are widely distributed geographically the time and cost will increase.

Systematic Sampling :

This method is followed when a complete list of population is available. The units in the population are arranged on an order say, alphabatically (or) chronologically (or) geographically and ascending or descending order. Then sample size should be decided. Afterwards calculate N/n (N denotes population and n denotes sample size). If the population is 1000 and the sample to be selected is 100. Select the first item at random using lottery method. Lastly every N/n th unit from the first sample will be included in the sample.

For example a population of 100 units are given serial number 1 to 100 and arranged in ascending order. The sample size is determined as 20. Then select on sample at random say 6. Then find the interest by using N/n = 100/20 = 5. Now choose all the fifth unit from the number 6 say 11, 16, 21, 26 etc.

This method is simple and require less time and work. But it is not representative. It is suitable when the population is large. However this method is not suitable to the population having hetrogeneous units.

C) Cluster and Area sampling:

It is a survey conducted on a group simultaneously. Clusters (groups) are selected on the basis of predetermined strata. The variousunits comprising the population area grouped in clusters and each cluster has an equal chance of being drawn. It applied to different unit of study such as products, people and georgraphical area. For example for a study of factory in Trichy, factory may be clustered on the basis of area say, factories in Madurai road, factories in Tanjore road, factories in Chennai road etc. This method reduced time and cost.

Multi-stage or Multi phase sampling:

This is in fact a development of the principle of cluster sampling. Here sampling is done at various stages or levels. For example if we want to take 5000 households as sample from Tamilnadu. First divided in districtwise. Then select few districts. Then divide district into several taluks and select few taluks. Then divide taluks into several towns and select few towns. From the towns select few houses. When the population is very large this method is as follows:

NOTES

II Non-Probability or Non Random Sampling:

In this sampling method each unit of the population does not have equal chance of being selected. An estimate of sampling error can not be made. This method can further be divided into a) judgement sampling b) convenience sampling and Quota sampling.

a) Judgement or purposive sampling:

The sample selection is based on the judgement of the researcher. Thus the method of selection is not scientific and haphazard. Units included in the sample are choice of the researcher. For example for a study of brank choice of soft drinks by students in a college canteen the researcher may include girl students alone in the sample. Because in this judgement they use soft drinks more.

b) Convenience Sampling:

Under this method the units are selected according to the conveneince of the researcher, such as nearness, easy availability of data etc. For example views about the film collected by the J.V.Channel from the audience comming out of the theatre. It is used forpilot study which is being undertaken for getting insight into the subject matter of the study. But this method is unscientific and unreliable.

c) Quota sampling:

Under this method the universe is divided into strata on the basis of certain characteristics. Then the quota is fixed for each stratum in porportion to the size. The investigator chooses the units in each strata in a non random manner. For example, if a study relate to the impact of advertisement is to be made in an area. On the basis of income consumers are divided. According to their size, sample size of each category is fixed. Now the researcher can choose any consumer according to his convenience but from the area concerned.

5.7 ADVANTAGES OF SAMPLING:

The advantages of adopting sampling tehnique for collecting data may be summarised as follows:

1. Information is collected from a portion of the universe. Hence it is less time and money consuming one.

2. The results are available very quickly and decisions are taken without much delay.
3. Sampling gives scope for more accurate data.
4. Since data are collected from a portion of the auniverse, indepth collection is possible.
5. Sampling errors can be assessed mathematically.
6. Sometimes sampling used to check the accuracy of the census method.
7. When the universe is large and wide spread geographically, sampling is theeasy way to collect information.

5.8. DISADVANTAGES/LIMITATIONS OF SAMPLING:

Despite the various advantages of sampling it is not free from the limitations.

1. A sample survey must be carefully planned and executed. Especially in defining the universe and selecting the sample care should be exercised. Otherwise it will lead to inaccuracy and the result will be misleading.

2. In the absence of services of experts the sampling survey can not be relied upon..

3. When the information is to be collected from each and every unit, a complete enumerations survey is necessary.

4. If the sampling plan is complicated and larger one, it will incur more time and cost.

5.9 KEY TERMS

* Sampling
* Stralified
* Probability
* Randing

5.10 SUMMARY

Sampling Techniques, Need for sampling, Characteristics of good sampling, Steps in sampling or process in sampling, Types/Methods of sampling,

NOTES

5.6. TYPES/METHODS OF SAMPLING:
I. Probability or Random Sampling:
1. Simple Random Sample:
a) Lottery Method
b) Random number method
2. Restricted Random Sampling:
a) Stralied sampling
b) Cluster Sampling
c) Systematic sampling.
II Non-Probability or Non Random Sampling:
a) judgement sampling
b) convenience sampling and Quota sampling.

NOTES

Unit - V

True - False

1.A sample is a smaller representation of a large unit or value.

True / False

2.The process of drawing a lot among the population.

True / False

3. This method is followed when a complete list of population is not available.

True / False

4. The sample selection is based on the judgement of the researcher.

True / False

5. Information is collected from a portion of the universe.

True / False

Answer.

1. True 2. True
3. False 4. True
5. True

Advantages of sampling, Disadvantages/Limitations of sampling are dealt in details in this unit.

5.11 MODEL QUESTIONS:

Part - A

1. Explain the importance of sampling social survey.

2. Examine the requirements of a good sample.

3. What is a sample scale? How can it be determined?

4. Distinguish between sampling and non sampling error.

5. Explain the procedure followed in selecting randing sample.

6. What is the necessity and importance of sampling in Marketing Research?

Part - B

1. Discuss the relative merits of cencus and sampling methods of collectingdata for marketing research.
2. What is random sample? Discuss briefly its various types?
3. In determing sample size what factors must an analyst consider?
4. What is stratified sampling. State its merits and demerits?
5. What steps are essential in determining the sample size in a research project.
6. What are the advantages of stratlified random sampling over simple random sampling?

LESSION - VI TABULATION OF COLLECTED DATA

STRUCTURE

6.0 Introduction

6.1 Unit Objectives

6.2 Preparing Raw Data

6.3 Editing

6.4 Cording of Data

6.5 Types of categorisation of Data

6.6 Unsing Summary Statistics - Tabulation

6.7 Analysis and Interpretation of Data

6.8 Key Terms

6.9 Summary

6.10 Model Questions

6.0 INTRODUCTION

Raw data collected are not useful, it they are not tabulated. It must be processed systematically because it may be collected hastily. They must be made ready for analysis. This involves tabulation of collected data.

6.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Preparing Raw Data
* Editing
* Cording of Data
* Types of categorisation of Dat.
* Unsing Summary Statistics - Tabulation
* Analysis and Interpretation of Data

NOTES

6.2. PREPARING RAW DATA

The primary data which have been collected by survey experiments or observations by the field investigations are called raw data. Raw data collected are not useful, if they are not processed systematically. Because data may be collected by the field worker hastily and unsystematically. These data are in crude form and are not ready for analysis. Now the researcher has to process the data to bring it into usable form. The process involves editing, coding and tabulating.

6.3. EDITING

Data collected by the field worker may be inadequate. Field rspondents' answers may be irrelevant and coherent. So such data are to be weeded out. Here that process is done through coding. Coding refers to inspecting, correcting and modifying the collected data. The chief objective of editing is to detect possible errors and irregularities. The task of editing is a highly specialised one and reserves great care and attention.

a) Considerations needed in editing primary data needs the following considerations.

i) Editing for completeness:

The editor should ensure that each schedule or questionnaire is complete in all respects i.e. each question is answered, especially vital questions. If they are not filled up the interviewer should contact the respondent and collect the information. If it can not be collected the entire respondent should be dropped from the sample.

ii) Editing for consistency:

The answers to the questions should not be contradictory in nature. If there is any contradiction that should be clarified and corrected. For example for the question "Are you married" the answer is 'No' then in another question as to number of children if the answer is two or three then the answers are contradictory which should be clarified.

iii) Editing for accuracy:

The reliability of conclusion depends basically on the correctness of

nformation. Hence the editor should ensure the accuracy of information in all respects. If the inaccuracy is due to arithmatical errors, it can easily be detected and corrected. However if the information is false, it is difficult to verify.

v) Editing for homogeneity:

Interpretation of information is useful if the information are homogenous. If it is not homogeneous it should be made homogeneous. For example sales data may be of monthly sales, weekly sales or annual sales. It can be made homogeneous by converting monthly and weekly sales figures into annual sales figure.

b) Stages in editing:

Editing of data are carried out in two stages.

i) Field Editing ii) Office Editing

i) Field Editing:

It is important in the case of field editing. Generally the interviewer can not fill up all the quiestions during the interview and instead take notes and fill the questionnaire later. He reviews, corrects and make answers more specific on the questionnaire. it is known as field editing.

ii) Office Editing:

It takes place when all forms of schedule have been completed and returned to the office. All the schedules or mail questionnaire are pooled at a central place say at office. Then editing is carried out. Generally it is done in the case of mail questionnaires.

c) Problems in editing:

i) Fictitious:

In personal interview and telephone survey the interviewer may fill up the questionnaire without conducting interview. It can be detected by checking the inconsistencies and uniformity. This fraud can be minimised or eliminated by cross checking.

ii) Inconsistencies or contractions:

There may be inconsistencies in the answer given by the respondents by interviewer by mistake. For example in the questionnaire for a question regarding

NOTES

children the answer may be no children. Later in another question they would have given likes and dislikes of their children. It may obviously be taken that the first answer was so written by a mistake of the interviewer.

iii) Illegal responses:

The respondent's, who filled the questionnaire, handwriting may be not legible. In such case the editor has to interpret the answer from the questionnaire. Sometime the interviewer may wrongly enter the correct answer given by the respondent. In such case the editor has to adjust the data himself.

iv) Incomplete answer:

Sometimes a respondent may unable to answer or reluctant to answer a question but answer some other relevant questions. In such case the editor has to fill up the incomplete questions from the answers of other questions.

6.4 CODING OF DATA:

Coding refers to assigning numbers or other symbols to each answer or placing them in categories to prepare data for tabulation. Thus coding is the process/operation by which data/responses are organised into classes/categories and numerals or symbols are given to each item according to the class in which it falls. Thus it involves two operation a) deciding the categories to be used and b) allocating individual answers to them. The categories designed should accommodate all relevant data in any one category.

When computers are to be used for the tabulation, it is necessary to replace the answers given on the returned printed questionnaires with code numbers that can be transferred to punch cards. Even for hand tabulation it is usually better to code the replies rather than maintaining the answers in their original survey form.

NOTE

An Illustration of coding is described below:

Question number	Variable description	Response Categories	Codes
1	Sex	Male	1 M
		Female	1F
2	Age	Actual age of respondent	20<25=1
			25<30=2
			30<35=3
3	Religion	Hindu	H
		Muslim	M
		Christian	C
		Sikhism	S
		Jainism	J

a) Categorisation of data:

Categorisation or classification is the process of grouping the statistical data under various understandable homogeneous groups for the purpose of convenient interpretation. Data are grouped according to their similarity. A good categorisation should have the characteristics of clarity, homogeneity equality of scale purposefulness and accuracy.

6.5 TYPES OF CATEGORISATION OF DATA:

Data can be grouped or categorised on the following basis:

i) Categorisation on periodical basis:

Data relevant to particular time is put under one category. For example with regard to the sales of product from various centres in two periods say 2000 and 2001 are classified into two sales in the year 2000 and sales in the year 2001.

ii) Categorisation on geographical basis:

In this type the groups are grouped on the basis of places. For example sales in Madras branch and the sales in Delhi branch.

a) Rules for coding:

The following are the importantguideline to be borne in mind with coding questionnaires.

NOTES

i) One code should be specific to only one kind of information so that a given response fills in anyone category.

ii) The categorisation made should be exhaustive of the data mutually exclusive and undimensional so that all response could be classified in one or other categories.

iii) Give code number for each question and each response.

iv) Separate category should be created for recording 'non response' and 'no knowledge' responses.

v) Inter - coder and intra - coder agreement tests should be conducted throughout the entire coding process to check its reliabiliy.

b) Key punching, sorting and counting:

The data are ready for analysis after editing and coding is over. Now the data are in the interview schedule or in questionnaire. As a next steps the responses are to be transferred to cards. The process of transferring information from an interview schedule or questionnaire to card is called 'Transcription'. Thus transcription means posting data from the questionnaire or schedule on an intermediary materials in a summarised form.

After transcription of data, the cards are sorted and counted for analysis purpose. There are several types of cards are used. The type of card used is determined by the mode of data processing. The major mode of data processing are hand machine and computer. If the sample size is small, the number of variables few and computation is simple manual processing is successul and efficient, But the increase in size of sample, the number of variable and the complexity of computation machine and computer processing become necessary.

Card used in manual counting and manual sorting

i) Card Sort and count method:

In this type, a thick card with columns printed on the edge is used for each questionnaire/schedule. Each question has a number. Each question variable is given a number. Enter the code number or value of the response in the concerned column. Approximately 40 columns can be printed in a card and one can enter 80 responses on both sides.

Strip Me

Long strip of one inch width is used in this method. Each strip has 160 mns printed on each side. Thus responses relating to 320 items can be re- d in one strip. The strip can be folded and made easy for handling.

SING SUMMARY STATISTICS - TABULATION:

Summarization of result in the form of statistical table is called tabulation. cess of tabulation involves combing and totalling of the collected data. ation is a means of recording classification in a compact form in such a way as itate comparisons and show the involved relations. It is an orderly arrange- data in columns and rows. In tabulations data are arranged in the forms of or facilitating the statistical and mathematical operations. The purpose of a able is to simplify the presentation and to facilitate comparision. Quantitative analysis of the social and economic situations are usually more convincing than the qualitative approach and are capable of comparison with the findings of other studies.

a) Rules for Preparing Statistical Tables:

i) The table should be precise and easy to understand.

ii) Each table should have a title. Title should descibe contents of table briefly and clearly. The unit of measurement and the year to which the figures relate should also be given after the tilte.

iii) Each table should be numbered to facilitate reference.

iv) The headlines are of two kinds. Headings on the top of the column are called captions and on the line are called 'stub'.

v) Items should be arranged either in alphabetical chronological or geoglraphical order or according to size importance emphasis or casual relationship to facilitate comparison.

vi) Column and rows to be compared with one another should be brought together.

vii) Columns may be numbered to facilitate comparison.

NOTES

6.5 TYPES OF CATEGORISATION OF DATA:

i) Categorisation on periodical basis,
ii) Categorisation on geographical basis:
a) Rules for coding,

b) Key punching, sorting and counting, Card used in manual counting and manual sorting:
i) Card Sort and count method,
ii) Strip Method

viii) Totals can be placed either at the top or at the bottom of the column.

ix) Pay explanatory foot notes concerning the table itself are given reference symbols and are placed directly beneath the table. Sources of the data are given below the table.

b) Types of Tables:

On the basis of construction tables have been classified as follows. Table are classified on the basis of number of characteristics or variable studied.

i) Simple tables or one way table:

In a simple table only one characteristics or variable is shown. Hence thi table is called one way table. Example of such tabulations are the classification o states on the basis of population, distribution of student on the basis of subjects o community or degree studied or sex etc. An example of such table is as follows:

Grouping of students on the basis of their degree

S.No	Degree	No.of students
1.	B.Com.	70
2.	M.Com	35
3.	B.B.A	60
4.	M.B.A	30

ii) Complex table:

It can further be divided into two (1) Bivariable table (2) Multi variabl table.

i) Bivariable Table

Table representing two variable or characteristics are called bivariable table Following is the example of bivariable table.

S.No.	Degree	No.of students		
		Male	Female	Total
1.	B.Com	50	20	70
2.	M.Com	20	15	35
3.	B.B.A	40	20	60
4.	M.B.A	15	15	30

Here two variables degree and the sex of the students are shown.

ii) Multivariable table:

When more than two variables or qualities are shown in a table it is called multivariable table.

S.No.	Degree	No.of students								
		Male				Female				Total
		OC	BC	MBC	SC	OC	BC	MBC	SC	
1.	B.Com.									
2.	M.Com									
3.	B.B.A									
4.	M.B.A									

Source: College records.

Here three variables namely course, sex and community of the students are shown in this multivariable table.

c) Methods of tabulation:

Methods of tabulation are classified into two.

a) Manual Tabulation:

When only a small survey using a small number of questionnaire is involved

NOTES

6.6 USING SUMMARY STATISTICS - TABULATION:
a) Rules for Preparing Statistical Tables,
b) Types of Tables:
i) Simple tables or one way table,
ii) Complex table:
(1) Bivariable table
(2) Multi variable table
c) Methods of tabulation:
a) Manual Tabulation,
b) Mechanical Tabulation/Electronic Data Processing

the answer can be recorded manually in a central record sheet. Even when large sample are involved but less complex statistical technique are used the manual tabulation.

b) Mechanical Tabulation/Electronic Data Processing:

When large number of samples are involved and statistical techniques used are complex, this method is used. Electronic Data Processing Method is the most advanced mechanical methods for tabulating data. Because computer are capable of making thousands of calculations within fraction of a second. it can use very complex statistical techniques easily.

Depending upon the number of samples, statistical techniques used, one has to choose a method since each method has its own merits and demerits.

6.7 ANALYSIS AND INTERPRETATION OF DATA:

The data which are processed with the help of editing coding and tabulating activities are ready for analysis and interpretation. The analysis and interpretation required maximum skills on the part of the researcher. The manner in which data can be analysed depends to a great extent upon the measurement and sampling procedure followed in their collection. Depending upon the two components the analysis of all collected data can be either statistical or non-statistical.

Analysis is the process of placing the data in an ordered form combining them with the existing information and extracting meaning from them. Raw data does notgive meaningful information. Analysis of data is to be made with reference to the purpose of the study and its possible bearing on the scientific enquiry. Analysis precedes interpretation. Under statistical analysis averages, measures of dispersion correlation coefficient are used.

Iterpretation is the process of relating various bits of new information to other existing information. Interpretation is drawing conclusions from the gathered data in a study. After presenting the factual position the researcher must give him opinion based on the facts or forms of relationship that exist between variables.

6.8 KEY TERMS

* Editing
* Tabulation
* Salient
* Hastily

6.9 SUMMARY

Preparing Raw Data, Editing, Cording of Data, Types of categorisation of Data, Unsing Summary Statistics - Tabulation, Analysis and Interpretation of Data are dealt in details in this unit.

6.10 MODEL QUESTIONS:

Part - A

1. What is editing? Why it is necessary?
2. What are the various kinds of table?
3. Explain the various methods of classification.
4. Explain editing and describe its procedure.

Part - B

1. What is transcription? What are the various types of cards used for it?
2. What is tabulation? Describe the rules for preparing statistical table.
3. What are salient features of an ideal table used for presenting statistical data?
4. Define tabulation. How it is useful in condensing the given data?
5. What is meant by statistical table. State clearly the essential of a good table?

NOTES

Unit - VI

True/False

1. The primary data which have been collected by survey experiments or observations.
True/False
2. Coding refers to assigning numbers or other symbolks to each answer or placing them in categories to prepare data for tabulation.
True/False
3. Dat relevant to particular time is put under one category.
True/False
4. Summarization results in the form of under one category.
True/False
5. When only a small survey using a small number of questionnaire is involved the answer can be recorded manually on a central record sheet.
True/False

Answer:

1. True 2. True
3. True 4. True
5. True

NOTES

LESSON - 7 REPORT WRITING

STRUCTURE

7.0 Introduction

7.1 Unit Objectives

7.2 Target audience

7.3 Types of the Research Report

7.4 Format of a Research Report

7.5 Contents of Report

7.6 Key Terms

7.7 Summary

7.8 Model Questions

7.1 INTRODUCTION:

Report writing is the last phase in the journey of research. It is the culmination of nay research investigation, a the research worker is obligated to report his study on its completion. Only at this stage the researcher assembles the findings of the study draws conclusion and evaluate his own findings. researchers are able to present his findings in a form which is readily understood and assessed, as also the validity verified by the evidence produced in support of the conclusions.

Thus a report is a detailed description of what has been done and how it has been done with respect to a particular problem. The main purpose of the report is to convey to the interested person the result of the study in sufficient details so that new findings or new methods of analysis can be incorporated into general store of knowledge available in the area.

A research report is essentially a scientific document and hence it must be clear, accurate and precise. Confusion and ambiguity must be carefully guarded

against by a researcher. The presentation fact must be logical and objective. Repetition should be avoided.

NOTE

7.2 TARGET AUDIENCE:

The purpose of report is not communication with oneself but communication with the audience. Hence while preparing the report the researcher should bear in mind the type of audience who uses the report because he can decide the language, design etc. accordingly. Generally the audiences are classified into three a) Layman b) Administrator and C) Technical expert.

a) Report for layman

Report for the layman should be lucid, simple, scruplously avoiding distortion, defaults of investigation, jargon and technical terms. It is prepared to disseminate the broad facts findings and recommendations. It is also called as popular report.

b) Report for the administrator:

It is prepared for the Manager, top executives and owner of the organisation. It should not be too generall or too technical. The recommendations must be specific for the administrator to give effect to findings and suggestions are given more importance.

c) Report for technical expert:

It is prepared by a researcher or to his team member. Conceptual and analytical frame work and sample design should be adequately explained. The report contains the full details of the technical aspects both in sampling methods adn subject matter. The facts have to be presented logically and swquentially with smplicity, clarity and brevity.

7.3 TYPES OF THE RESEARCH REPORT:

Emphasis on communication with an audience demands that one be clear about the type of reader for whom a given report is intended. According to the type of reader the report can be classified as discussed above. The report can be divided on the basis of form of report i.e. oral report and written report.

NOTES

7.2 TARGET AUDIENCE:
a) Layman
b) Administrator and
C) Technical expert.

a) Oral Report:

It is otherwise called verbal report. The researcher reports his findings and recommendations orally i.e. by having direct conversation with the audience say, business executive. It is popular in USA by industries and government. Unlike written report it is a two way process. Since direct discussion is made with the audience, it gives a great scope for explaining the finding and discussing the implications. It is effective in the case of policy recommendations.

b) Written Report:

Written reports refer to the presentation of report in black and white form. It involves certain procedural and method to prepare the report. Written report themselves are different types and their planning drafting and documention vary with the types purposes and readers. It is of three types as discussed earlier a) Popular Report b) Report of Executives and c) Technical Report.

7.4 FORMAT OF A RESEARCH REPORT:

The main ingredients of a good report format with regard to a written report is given as follows. Depending upon the nature of research, audience, length of the research etc. the format may vary.

GENERAL FORMAT OF A REPORT

I Pre-factory Material or The Preliminary

a) Title Page

b) Table of contents

c) List of tables/graphy/diagrammes

d) Preface or forward

II Text or contents of the report

A Introduction

i) Objectives of the study

ii) Statement of the problem

iii) Conceptual definition

iv) Time place and material of the survey

v) Scope of the study

vi) Hypothesis

vii) Limitations of the study

viii) Methods, tools and techniques employed for collection of data.

B Analysis and presentation of the result

i) Report of facts - nature volume and dimension.

ii) Statistical analysis of data.

iii) Interpretation, generalisation and conclusions.

iv) Summary of findings and recommendations

III Reference Material

i) Appendices - questionnaires, schedules etc.

ii) Bibliography

iii) Index

iv) Glossary of terms.

7.5 CONTENTS OF REPORT:

The contents of a report differ according to the type of target audience. The report should focus on the target audience and conclude the material of interest to them. The material that would not be appropriate for them can also be separated from teh text and incorporated in the foot notes or appendix. Generally the following are the contents of a report.

1) Title Page:

The first page of the report is the title page. It exhibits the title of the research project, the name of the researcher, the name of hte supervisor, sponsoring agency (name of the business concern) date of presentation of the report and the place.

NOTES

7.4 FORMAT OF A RESEARCH REPORT:

GENERAL FORMAT OF A REPORT:

I Pre-factory Material or The Preliminary,

II Text or contents of the report,

A Introduction

B Analysis and presentation of the result

III Reference Material

2) Preface:

Preface gives general introduction to the project and its importance. It may brief the background, scope purpose general nature of the research upon which the report is based and acknowledgements. In acknowledgement the research thanks the persons, institutions etc. who helped him in the research.

3) Contents

a) the chapter sections and other headings used in the report and the pages on which each of them is found, are listed.

b) The number of tables presented in the report and the page number of each table.

c) The list of charts, diagrames, graphs presented in the report with the page number in which they are appearing.

4) Introduction

The researcher introduces the subject and topic of research. The introduction will include few pages of historical development or orientation of the subject. It gives background of the problem and the importance of the problem.

5) Review of literature

A review of earlier researches done in relation to the research project is given. The research gap is determined and need of study is also put forward in the section. It also denotes the previous researches done and its relation to the present work.

6) Statemetn of the problem

Significance and justification for the present study is stated here The significance of the problem and its contribution towards the development of company are indicated here.

7) Objectives of the study:

It states clearly the airm or purpose of the study. It is the guide post through

which the research is directed. Hypothesis (a tentative solution to problem) are framed on the basis of objectives.

8) Scope of the study

It denotes the exact coverage of the study.

9) Conceptual frame work

If a researcher has a different meaning for a known term, then it is explained here. For example a researcher may mean a customer as one who buys frequently above Rs.500/- each time. But in general the meaning for that term is different. Like that a researcher may coin a new term and give its meaning here to enable the reader to understand it.

10) Methodology

It deals with the plan of the research i.e. Research Design.

a) Research Design

It gives details about the exploratory, explanatory, descriptive or experimental nature of the research work.

b) Data collection method

The data used, primary or secondary are specified here. A copy of the questionnaire or schedule used is enclosed in appendix and its importance is highlighted in this section.

c) Sampling Plan

Details regarding method cf sampling size of sample, sample units etc. are specfied here.

d) Field work

It deals with the details of field work carrie done for administerin gquestionnaire or collection of secondary data etc. Not-at-homes, refusal to cooperate, respondent bias, and interviewer bias are also highlighted which create problems in the data collection and subsequently give rise to data collection errors.

e) Data analysis and interpretation

It deals with the various statistical tools used and the reliability of the instruments selected or constructed for the analysis of the date. It also justifies the use of such tools in this research work.

f) Limitation

Various constraints facing the researcher which restrict him for detailed analysis if any is pinpointed. Generally, time and money are the constraints to a researcher. Selection of sampie, determination of size of sample may also hurdles faced should be exposed in this section.

11) Chapterisation

Preview of the scheme of chapterisation is the main body of the report and their inter relationship.

12) Results and discussions

It forms the body of the report. It is otherwise called analysis and interpretation. Here results and findings of the study are given and discussed. It contains assortment of tables chart and graph. The study objectives must be kept in mind while presenting results. Hypothesis are tested and the results are presented.

13. Conclusions:

Conclusions are drawn from the finding of the report. Conclusion must be drawn in order and sequence. It must be unbiased and based on facts. The researcher should ensure that the conclusions are based on the objectives of the body or research questions made. If any of the objectives are not fulfilled, explanation for non fulfilment should be stated here.

14. Recommendations:

The recommentations should be based on the finding of the study. Suggestions or recommendation can follow the conclusion immediately or they can be given separately. The suggestion offered must be valid and practicable for implementation. The oritical and sterile suggestions must be avoided.

15. Summary (Abstract):

A brief summary of the report may be given at the end of the report. in it the scope for further research may be highlighted.

16. Appendices:

In appendix supportive fact or informations are included. The informations which are not directly related to the main report should be included in the appendices for those readers who want to go in depth of certain aspects of the eresearch work. Generally it includes a copy of questionnaire or schedule, covering letter used in the study, documents and long explanatory notes to the text, instruction to field workers statistical tests etc.

17. Bibilography:

A bibilography means book list i.e. a list of written sources either published or unpublished, consulted in the preparation of the report during the course of the research. Generally it is given at the end of the research work. It may be arranged according to the alphabetical order, chronological order, kinds of the work listed etc.

VI Style of Reporting

A great care should be taken while writing a report. The report is a communication process between the researcher and the reader. The report should by clear, easy to read and accurate in information and statements. Vagueness generalisation and presumptions willmake the report incompete and uninteresting.

According to M.H.Gopal following factor factors influence good write-up.

a) the reader in view

b) how technical the problem is

c) the researcher's hold over his facts and techniques.

d) the form and fullness of the notes i.e. of hte data and/

f) foundation

NOTE

NOTES

The first step in clear presentation is clear thinking. Report writing is a reasoning process and without clarity of thought there won't be clarity writing. Only by thinking the researcher developes originality.

M.H.Gopal, Research Reporting in Social Science. Dhanwar: Karnataka University 1965 P 36

The second step is that the researcher should have good command over language. Inadequacy of command will lead to poor writing. At the same time the report should be simple and in lucid style. Complex high sounding language should be avoided. The researcher should not use, technical jargons, proverbs etc.

Thirdly brevity is the essential character of a good report writing. Repetition and superflousness will obstract the lucidity of the report and will interference with precision and clarity.

Fourthly, objectivity is an important principle in report writing. Unbiased and report fortified by facts are required. Report should convince the reader with the facts.

Finally visual aids, blue graphs charts, maps and diagrams may be incorporated in relevant pages of the report. Documentation is one of the main components. Foot note and bibliography are the reference to the source from which ideas, facts adn opinions are borrowed from previous work.

Generally the report should go through three drafts which are discussed in the following paragraphs.

VII Steps in drafting reports:

Three steps are involved in writing a report irrespective of the nature of audience. Each draft has its own distinguished features.

a) First draft:

The objective of the first draft is comprehensiveness and fullness of facts. It is written rapidly. The first draft should show progress and direction not only in the

volume but also in the facts assimilated and the deduction made from them. The body or text is written first and then the introduction. All the facts of value are brought in the first draft. Researcher should read up his notes and try to bring all relevant facts to the draft. Researcher may read up fully thenotes and afterwards draft out of his memory or he may outline the report and by taking the points from the notes.

NOTE

b) Second draft

After completing the first draft the revision is to be made for writing the second draft. Form and language are given importance in the second draft. It is done by considerable trimming pruning and editing. Ideas and sentences have to be realigned by writing and forming, so that the report gets clarity order logic units coherence and naturalness. Finally at the second draft stage critical evaluation will have to be made of all that has been written facts findings conclusions and recommendations. Language should be used carefully to make the report readable and effective.

c) Third draft

It concentrates mainly on the finish and final touches i.e. on documnetation and polish to make the report weighty, authoritative, convincing and attractive. Documentation indicates the references to the sources other previous and current work and view, additional data and discussion and suggested further reading on the specific problem as handled by the researcher.

By patient review of the written material improving the draft and by giving more thought and effort the write-up could be made effective. Before giving final touch up to the report it is better to keep the manuscript aside for a while so that it gets cold. The gaps and weakness come to limelight only after a lapse of time when the material is carefully re-examined and re-edited.

VIII Evaluation of Research Report:

What constitute a good research report is not agreed upon uniformly by research advisors and research project report examninig committees. However in the following aspects are expected and agreed by a number of authors in general.

NOTES

A good and concrete criteria to evaluate the research report is not at all suggested by any one and suggested criterias are not at all accepted by all authors. However common criteria and requirement for a good report accepted by many authors are discussed below:

Title of the research problem is concerned it should be clear, simple and concise. It should enable the reader to understand the main objective of the problem concerned. Next, the problem chosen shoud be justified by its need and relevance to the business enterprise. It should ensure proper formulation of hypothesis and the assumptions, limitations stated are correct. The report should ensure that the researches have gone through relevant literatures adn previous research work before drafting the report.

Research design should satisfy the adequacy of data, selection of sample size, method, right method of collection of data, proper organisation etc. Moreover the various satistical tool used, and analysis made are satisfactory to test the hypothesis and draw the final conclusions. Report should also ensure that the facts are summarised with documentary evidence and in proper form. The findings andconclusion shoudl justify the data presented and analysed. Objectives of the problem shoud be fulfilled and hypothesis shoudl be tested with resumed statistical tools. Documentation and suggestions should be made on the basis of the findings of the study. Moreover the report should ensure that the writing is precise, simple and direct and headings, foot notes, quotations are used properly.

7.6 KEY TERMS

* Precaution
* Components
* Factors
* Formulation

7.7 SUMMARY

Target audience, Types of the Research Report, Format of a Research Report, Contents of Report are dealt in details in this unit.

7.8 MODEL QUESTIONS:

Part - A

1. What are the main components of a research report?

2. What are essential features of a good research report?

3. What are the principles of report writing?

4. What are precaution to be borne in mind while preparing a report?

Part - B

1. Describe the chief features of a good research report.

2. Explain the different stages involved in the presentation of a research report.

3. Describe the essential features of a research report.

4. What is a research report? What factors influence its formulation?

NOTE

Unit- VII

True or False

1. Repo t writ ıg is the last phase ı the journey of res arch.
   True/False
2. A research report is essent ally a s entific docun ent and ience must be clear, accurate and precise.
   True/False
3. The conten of a report differ a ording to the type (target audience.
   True/False
4. Preface give general introd ction to the p oject id its impor a ıce.
   True/False
5. A bib ıogra ıy means book li (i.e) a list at written ources either publish d or unpublished.
   True/False

Answer:

1. True 2. rue
3. True 4. True
5. True

NOTES

LESSON - 8 PRODUCT RESEARCH

STRUCTURE

8.0 Introduction

8.1 Unit Objectives

8.2 Meaning of Product 'Research'

8.3 Definition of Product

8.4 Product Planning

8.5 New Product Research

8.6 Product Life Cycle Research

8.7 Key Terms

8.8 Summary

8.9 Model Questions

8.0 INTRODUCTION

In the competitive business world, some products fail miserably while some other products get tremendous success. Every company spends handsomely on promotion and they also involve in competitive pricing policies. But still some company can not get their product accepted adn they have also failed to create a favourable image about their product. Some products with equal or higher quality than competing products may also fail. Then what is the reason for such failure. It is the product planning which makes the major difference if all other things are kept constant.

8.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Meaning of Product 'Research'
* Definition of Product
* Product Planning
* New Product Research
* Product Life Cycle Research

8.2 MEANING OF PRODUCT 'RESEARCH'

The term product research deals with the problem facing the product planning. These problems may include new product development, modification of the existing products. Immitating: Competitors' products, forùmulating and implementing prduct life cycle strategies, designing and evaluating packaging and branding strategies after sales-service and other product planning aspects.

Product research encompasses various areas of product mix, price, promotional aspects and product in the buyer's mind, distrubution channels and distribution system and attitude of consumers towards the product. In short product research consists of three researches namely new product research, product life cycle research and product mix research. Before going for discussion further the definitions of various concepts are to be understood. They are as follows:

Product

In general product is any object which has an identifiable physical existence. Each product has some physical or chemical properties. In modern marketing the term includes more than physical goods. The product also include intangible services. Product is a complex concept that has to be defined carefully.

8.3 DEFINITION OF PRODUCT

W. Anderson!

"A product should be considered as a bundle of utilities consisting of various product features and accompanying. Serivces".

Philip Kotler:

"A product is anything that can be offered to a market for attention, acquistion, use or consumption that might satisfy a want or need. It includes physical objectives, services, persons, place, organisations and ideas".

Willliam J.Standon:

A product is a set of intangible attributes including packaging, colour, price manufacturer's prestige, retailers prestige manufacturer's and retailers service which the buyer may accept as offering.

NOTES

8.4 PRODUCT PLANNING:

Product planning is the starting point of the overall marketing programme of a firm. It is concern with the decisions rrelated to the nature and other related aspects of the products produced. It includes the following branding, packaging, labelling after sale service, product life cycle, launching a new product, systems etc. selling etc.

Definition of product planning:

Karl H.Tcetjen: Product planning is the "act of marking out and supervising the research, screening development and commercialisation of new products, the modification of existing lines and the discontinuance of marginal or profitable items".

Three important considerations are understood from these definition.

- Development and introduction of new product.
- Modification of existing product lines to suit the changing consumer needs.
- Discontinuance or elimination of unprofitable products.

Product Development:

Product development and product planning are often used interchangeably. But they are differing each other. Product planning is wider in its scope and includes product development also. Product development is concerned with the technical activities of product research of product research engineering and design.

Scope of product planning and development:

William J.Standem has stated the combined schope of product planning and product development includes matching decisions in the following area.

- Make or buy decision.
- Number of items to be marketed.
- New uses of each product.
- Branding, packaging of the product.

NOTE :

- Attributes such as, colour, size, style of the product.
- Quantum of production.
- Pricing of the product.

Thus the product planning covers wide area.

8.5 NEW PRODUCT RESERACH:

The new product research is becoming increasingly significant because a huge amount is being increased in developing the new products. Moreover the new products are failing rapiidly due to various reasons. At the same time the successful new product development is becoming increasingly hard to achieve. There are various barriers in the introduction of new product. They are, fragmented markets, growing social and governmental constraints, costliness of new product development process, high rate of product failure and shorter life of span of successful products. Hence a new product development requires careful planning and implementation with adequate research information. A sound organisational arrangement for new product research is essential.

1) Need for new products:

On account of the follwing needs, production of new product become essential to a business concern.

a) Increased consumer selectivity:

In today's competitive world consumer is the king. Hence the rule of the survival of the fittest prevails. Product which caters to needs and wants of the consumer alone will get success. In recent years consumers become more selective in their choice of products. They are not satisfied with mere modification or imitation of another product. They expect a something more than that.

b) Product life cycle:

Each product has a life cycle and cross the stages of introduction growth maturity and decline. So when a product reaches the stages of declining it should be abandones and replaced by a new product.

NOTES

c) Product is a basic Profit determinant:

New products generally increase the volume of turnover and consequently the volume of profit. Profit is higher at the introduction and maturity stage of a product. Afterwards it will grow at decreasing rate. Hence by introducing new product a business can maintain profit.

d) Resources and environmental consideration:

Natural resources which constitute the basic raw material for products are very much limited. Hence production of the product can not be carried out for long period as its material may exhaust in the years to come. Hence alternative products using some other materials are to be introduced. For example scarcity of petrol, necessiated the invention of solar engery system and electrical products etc.

2) Meaning of new product:

Any product that consumers treat as an addition to the available choices could be considered a new product. But from an enterprise point of view new products are those products that are new to the enterprise and includes major modification of an existing product, imitation of competitor product, product acquisition or innovative original products. According to Birn, Robin new product development can be carried out in one of the following ways.

a) New product features can be developed by adapting modifying maximising, minimising substituting, rearranging or combining the existing features of a product.

b) Different quality versons of the existing product can be developed so that the needs of different market can be met.

c) Additional models and sizes of the existing product can be brought out.

According to William J.Standon, consumers are the ultimate authority to decide the product is new or not. He categorised a new product as follows.

a) Products that are really innovative: when existing product does not satisfy the needs and wants of the consumers,new products are innovated. For example invention of Television, Video Cassette recorder, electric oven etc.

NOTE

b) Products that are significantly different from the existing product. For example changes in dress model, Boost replacing coffee etc.

c) Imitative products: They are new to the enterprise but exist already in the market i.e. the company introduces the product to get a share in the market already existing., Glucose etc. are already in the market.

Thus a product is said to be a new product when the consumer considers it as new even if it not an innovation and just an imitation or modification of an existing product.

3) Stages in the new product development process:

New product development is an extremely difficult and time consuming process unforeseen situation may arise which may force the company to abandon its project mid-way. Before venturing into a new product development project one has to collect full information about the market and product opportunities. The product development program varies among organisations. However most firms employ logical and sequential process as described below. It is desirable to proceed step by step in this process.

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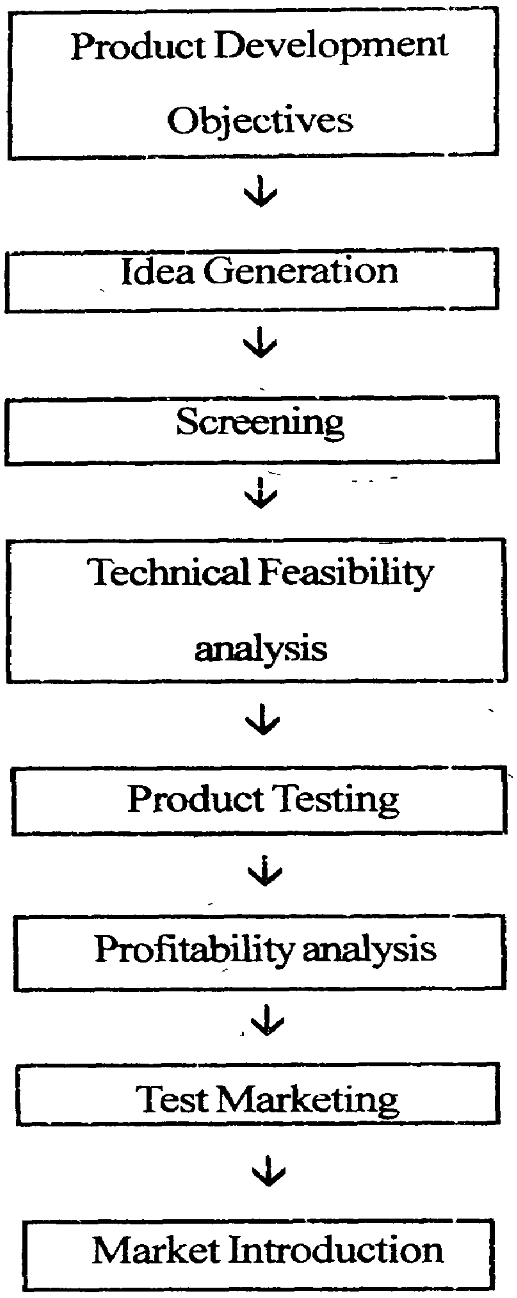
PRODUCT DEVELOPMENT PROCESS



a) Idea Generation:

Based on the new product development objectives ideas are received from the sources of customer, company, salesmen, dealers, scientist competitors, top management, industrial consultants, advertising agencies, marketing research forum industrial publication, universities and commercial laboratories. The objective may be of 1) new ideas for products b) new atrributes for existing product and c) new uses of existing products.

New product suggestion may come from Research and Development Personnel, who provides on the basis of new technology developed by them.

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Production personnel may suggest modification of existing product based on alternative production processes. Marketing personnel suggests on the basis of information from consumers through their examination of new market segments, competitive products or buyer usage pattern.

The enterprise should develop New product concept. The product concept is simply a definition of the product idea which clearly states the particular benefit to be provided or the attributes of the product or both. In developing the concept the management accruately assess the needs of buyers - preferably on a segment by segment basis.

An enterprise may adopt several methods to generate new ideas. The methods are as follows:

i) Attribute listing:

Major attributes of an existing product are listed. Then the attributes that can be modified to improve the product are analysed.

ii) Forced relationship

This technique involves listing of several objects and then trying to find how each object can be combined with the other objects. For example combining of a bed and a sofa set - fulfill the needs of savings of space.

iii) Problem analysis:

Here the problems faced by the consumers in using the product are found and modifications are made accordingly.

iv) Brain storming:

In this techniques few consumers are selected and group discussions are made with a view to generate number of new ideas.

v) Synetics:

Here, instead of defining the problem specifically as it is in brain storming it is defined broads and discussions are made. The participants have no idea of the

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specific problem. They give their view points and as more and more facts are gradually interjected their discussion tend to move towards specificity.

b) Idea Screening:

All new ideas can notbe converted into products as it requires heavy capital investmet.They are screened and worthless ideas are dropped at this stage. A concept may be considered marketable but problem may arise in production sides. Generally, availability of resources such as raw material, labour, equipment distribution, channel fince etc. relation to present product line, effect on sales of present product, merchandisability, resistance to cyclical and seasonal fluctuations, expected competitions are the factors considered while evaluating and dropping of ideas.

c) Concept Testing:

After screening of ideas the remaining ideas are developed into concepts of the products. The purpose of this testing is to develop a more refined estimate of market acceptance for the new product concept or to compare competing concept to determine themost appealing one.

Concept testing is designed to obtain the reactions of potential buyer to one or more hypothetical product concepts. Product features and benefits are presented in verbal form or explained through visual aids. Potential users are then interviewed to obtain comments about the merits and demerits of each concepts or asked to rate the product in various ways.

d) Technical feasibility:

After concept testing one or very few concepts will usually be found worthful.

Technical feasibility analysis is the process of determining the technical requirements for designing and producing concept. The availability of technology, and the time and cost required for development of the product will be considered at this point.

e) Product Testing:

Product test is conducted after prototype product has been developed.

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Product testing involves almost the same process used in concept development and testing. The objective of product testing is to ascertain the market response to the proposed product so that the management can decide whether the product or not the product should be carried forward. Concept testing involves the trial use of the product by a group of potential buyer whereas product test attempts to measure only the initial interest in the proposed product. Some usage tests may be conducted to know respondents view as to his buying when the product is available in the market usage test may also be conducted to ensure that the consumer actually use the new product and their views are free from bias. A well estabished concern conduct the test without disclosing their brand name.

f) Profitability Analysis:

The next step is the profitbility analysis.The profitability of the newe product if the ventura is taken are analysed here.Profitability analysis of new product will be a complex one due to the following four reasons:

a) Sales forecast are inherently more uncertain for new products. Anyhow a rough estimation of sale can be made.

b) Pattern of sales and costs for a new product will vary by a greater extent. Cost of marketing is higher and sales will be low during introduction stage.

c) When the new product is a substitute for existing product or share the market of existing product the incremental effect cost and profit should be evaluated.

d) Cost of additional investment required for producing the new product should also be considered.

In order to find the profitability and cost of the product various techniques like, net present value, pay back method etc. are used in general.

g) Test marketing:

In the test marketing a concern offers a product for sales in a limited geographic area that is as representative as possible of the total market in which the product will eventually be sold. Rober Feber has defined test marketing as follows:

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"Test marketing is a controlled experiment, done in a limited but carefully selected part of the market place, whose aim is to predict the sale or profit consequences, either in absolute or in relative term, of one or more proposed marketing actions. It is essentially the use of the market place as a laboratory and of a direct sales measurement which differetiates thsi test from other types of market research". In test marketing pertinent information regarding buyer survey, effectiveness of advertising promotor, point of sale material, cost, distribution problem, storage problem, average purchase of consumer etc. should be systematically collected and analysed and conclusion should be drawn. The final discussion as the commercialisation of the product or dropping of the product is to be taken after test marketing.

h) Commercialisation: (Market introduction)

A number of key decisions are necessary to the development of a product entry plan. They are as follows:

i) Timing of the introduction should be carefully evaluated. In case of seasonal product it is better to introduce during peak season to get better sales and reduce. higher cost of introduction.

ii) Along with the introduction other programmes like, pricing, promotion, advertising, selling and distribution activities etc. are to be developed and co-ordinated.

Scheduling of commercialisation activities should be arranged properly. Advanced technique like critical path method (CPM can be used for this purpose).

A successful introduction of new product depends on the handling and using of research information. In nutshell it can be said that the new product introduction is a game of information handling.

8.6 PRODUCT LIFE CYCLE RESEARCH

Marketing research plays an important role by collecting and analysing information for handling of the existing products efficiently, to the maximum extent. It is done by investigating into the various product life cycle stage.

Products like men are mortal. They flourish for a time then decline and die. A product is born, grows lustilly attains a dynamic maturity then enters its declining years. The life period of products varies widely with each other i.e. for some product the life period is short and ofr some othe product it is sufficiently long.

1) Stages in the product life cycle:

A product, during its life cycle, pass through different stages. They are a) introdution b) Growth c) Maturity and d) decline. William J.Standon has specified one more stage known as abandonment. Another stage known as saturation stage is also specified before the declining.

a) Introduction or Market pioneering:

Introduction stage starts when products are first distributed and made available to the consumers. At this stage, being it is new product consumer hestiate to buy and hence the sales volumes are low. There is heavy advertisement and promotional expenses to create the demand. Distribution expenses are also high. Prices are fixed to compensate the expenses. Hence the profit is negative or very low.

At this juncture, the information on product acceptance, product image and distribution systems are needed. In order to make more informations are collected and analysed.

b) Growth stage or Market Acceptance Stage:

In growth stage both sales and profit will begin to increase. Promotional costs are spread over larger volume of sales. The main problem in this stage is to produce the product in sufficient quantities and market the output with minimum delay. Competitor product and substitute product will enter into the market. Hence the promotional and advertisement expenses tend to increase.

Research effort is made to collect informations regarding competitor strategies, thier product attributes market share, price structure, discounts and allowances in pricing policies, distribution policies promotional programmes etc. The company will take effort to increase the product acceptance, product image

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8.5 NEW PRODUCT RESERACH:

1) Need for new products:
a) Increased consumer selectivity,
b) Product life cycle,
c) Product is a basic Profit determinant,
d) Resources and environmental consideration
2) Meaning of new product:
3) Stages in the new product development process:
a) Idea Generation,
b) Idea Screening,
c) Concept Testing,
d) Technical feasibility
e) Product Testing,
f) Profitability Analysis
g) Test marketing,
h) Commercialisation: (Market introduction),

and market share of the product. It has to search for new market segments, improve the quality by adding new attributes expected by the consumers. Moreover it has to open new distribution channel for providing more exposure to the product, shift informative advertisement to persuasive advertisement, fix competitive price etc. For all the above the concern needs information which is obtained through proper research arrangement.

c) Maturity Stage:

During this stage competitive becomes more acute. Sales continue to increase but at a decreasing rate. Therefore the producer sepnds more on advertising and other promotional activities to retain the market. Necessary changes should be made in the maketing mix and product mix. Prices may be reduced and quality should be improved to struggle with the competitors. The marketing stages passes through three phases i) growth maturity where sales grow slowly ii) Stable or saturation maturity where sales are constant iii) decaying maturity where the starts declining.

All the modifications in product mix and marketing mix require huge amount of information to be gathered and analysed about the competitive environment. Hence marketing research gains vital significance at this stage.

d) Saturation Stage:

This is period of stability or saturation maturity. The sales of the product reach the peak level and there is no possibility to increase the sales.

e) Declining stage:

Sales began to decline at this stage. The decline in sales may due to advancement of technology, shift in the taste and preference of consumer, increase competition-domestic and foreign. The firm has to decide whether to drop the product or continue with it. Market research provides information regarding the weak products.

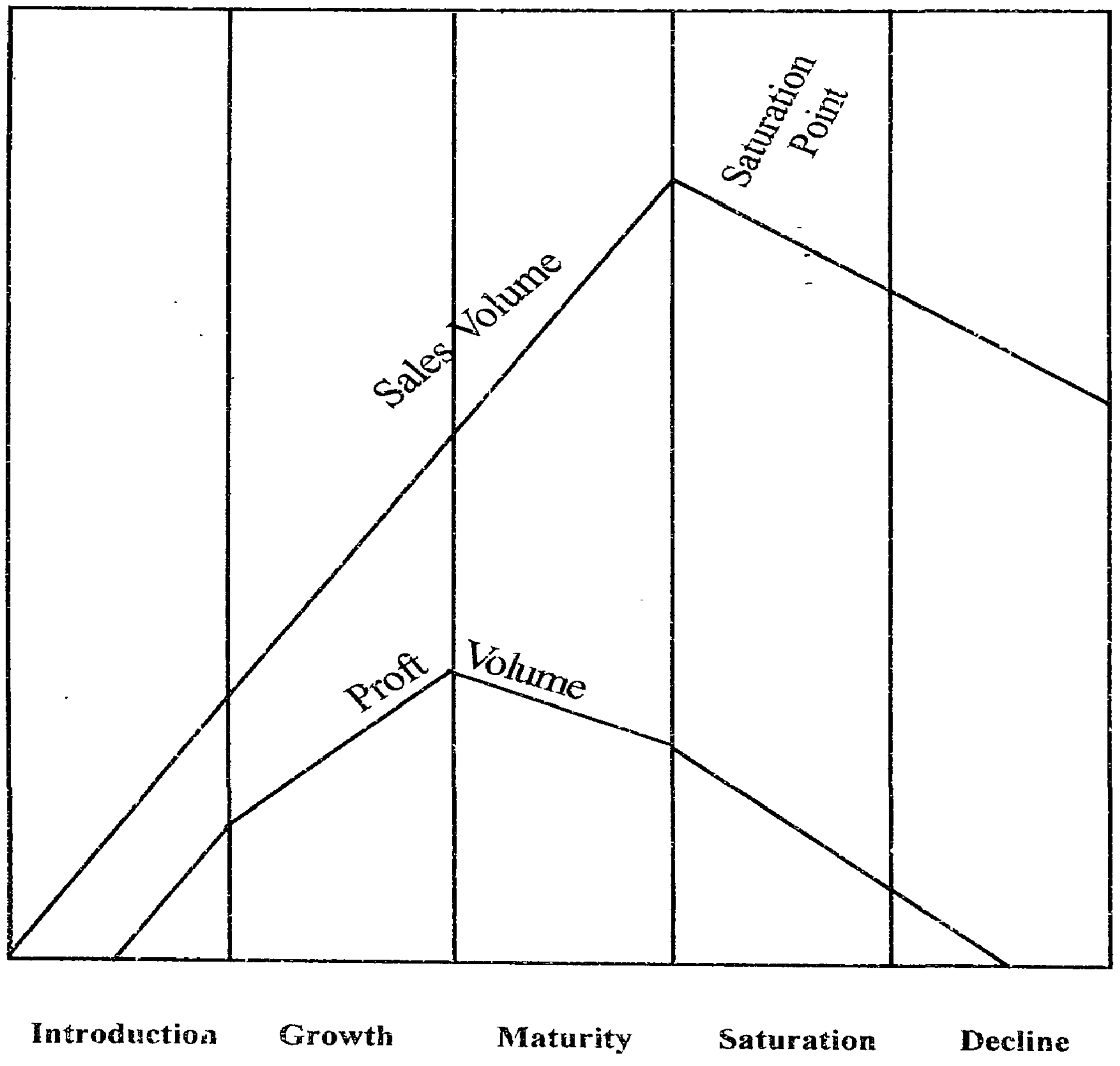
After identifying the weak products the researcher makes available the information whether the continuation stratgegy concentration strategy or milking

strategy will be useful for the firm with regard to the product. It all depends upon the competitors more. Hence informations on their strategies are to be collected, analysed and interpreted.

f) Abandonment:

The last stage is abandonment or obsolescence. At this stage there is no chance for profitable sales of the products. The product becomes totally out of date. Hence the management must drop it from the product line.

The product life cycle is graphically represented as follows:



PRODUCT MIX RESEARCH

Before discussing the product mix research it is essential to understand the various terms related to the product mix.

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a) product mix:

One major management aspect in product policy is the decision concerning product mix. Product mix refers to the collection of products deal with by a business firm. It is one of the elements in the product policy. It is a comprehensive term whihc covers the entire product lines and the product items the company offers for sale. For example Bajaj electrical company produces electrical appliances such as fans, mixer, lamps, etc. Hindustan Lever Limited produces various soap items, shampoo etc.

Definition of product mix:

American Marketing Association has defined it as follows:

"Product mix is the composite of products offered for sale by firm or a business".

Philip Kotler:

"Product mix (also called product assortment) is the set of all product lines and items that a particular seller offers for sale to buyers".

William J.Standon:

"The product mix is the full list of all product offered for sale by a company".

b) Product line:

A product line is a collective term. It refers to a group of products intended for essentially similar uses and possing reasonably similar physical characteristics. It refers to a group of products that are closely related because they satisfy a class of needs are used together, are sold to the same customer groups, are marketed through the same type of outlet or fall within given prices changes.

For example Maruthi Company produces Maruthi 800, Maruthi 1000, Maruthi Zen, Maruthi Versa etc.

c) Product Item:

Product item means specific version of a product that has a separate designation in the seller's list. It refers to a particular product. Philip Kotler has defined product item as follows:

"Product item is a distinct unit that is distinguishable by size, price, appearance or some other attribute".

For example, Maruthi Zen is a product item.

Product Mic Strategies:

Several major product mix strategies are used by manufacturer in marketing their products. A change in the product line or product item naturally changes the product mix and vice-versa. A manufacturer or a marketer can not depend on one product. He has to deal in a number of models. The number of products handled are increased or decreased according to the market situation. In order to regulate and direct the changes in the product line well concieved plans are essential. These plans are called product mix strategies. William J.Standon has categorised product mix strategeis into six which are listed as follows:

1) Expansion of product mix

2) Contradiction of product mix

3) Alteration of existing product

4) Positioning the product

5) Trading up and Trading down

6) Product differentiation and market segmentation

All these product mix strategies are planned and designed on the basis of information collected and analysed by the research deparment. Strategies changes according to the changes in the taste, fashion and preference of consumer which requires consumer survey regarding their attitudes etc. Moreover the strategies adopted by the competitor and producers of substitute products are also to be

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obtained. Informations regarding the competition products ar d su bstitut products are to be collected and analysed for formulating effective product mix st ategy.

A continous evaluation of package design branding polic es and after sales service is the essential component of product research. These rese urch ac ivities are besides the deciding the number of product items in the produc line a d consistency among lines and product items. Various other product line and mix decisions are to be investigated.

Package design must be inconformity with those competi rs or etter than compelitors. In package research pretesting and post testing are cond cted. The researcher tests designs colours shapes sites and symbols. He use s assoc ation test in selecting a package design from a number of available al ernat ives. ence the researcher has to collect analyse and interpret inforr ations o de sign, c ours and symbols pertaining to packaging.

Branding policies are also a very significant aspects of product pla nning and development. If a brand is appearing it can enhance the sales. A researc her has to investigate wheath er the branding policy serve the purpose of the organisa ions. The use of multiple brand strategines or brand extension strategies are c be in estigated by the market researcher.

After sale service also forms an area for research investig a ions. Since it is becoming increasingly important in todays competiti ve world. The resear her has to gather data regarding perfomance of the product, problem faced by the c nsumers with the use of the product, their expectation from the manufact rer e c. Wi h regard to consumer goods house wife are to be contacted in this regard.

In nutshell the resarcher efforts should be concentrate nc t only a the new product development but also on the product life cycle and the produc mix elements. More over data must be collected and analysed on problems a sociated with labelling trademarks and other product planning aspects

8.7 KEY TERMS

* Gaining
* Significance
* Investigations
* Life Cycle
* Strategies

8.8 SUMMARY

Meaning of Product 'Research', Definition of Product, Product Planning, New Product Research, Product Life Cycle Research are dealt in details in this unit.

8.9 MODEL QUESTIONS:

Part - A

1. What is the definition of product?

2. Describe the product planning and development.

3. Explain product mix strategies

Part - B

1. Why research is gaining increasing significance in the field of a new product development? Explain.

2. What research investigations are required while introducing a new product in a market?

3. Why the Marketing Research is important in understanding the product lifecycle? How would you analyse the product in different product lifecycle stages?

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Unit - VIII

True or False

1. Product research encompasses various areas of product mix, price, promotional aspects and product in the buyer's mind, distribution channels and distribution system and attitude of consumers towards the product.
True/False
2. A product is anything that cannot be offered to a market after attention, acquisition, use or consumption that might satisfy a want or need.
True/False
3. Product planning is the starting point of the overall marketing programme of a firm.
True/False
4. Act of marketing out and supervising the research screening development and commercialisation of new products
True/False
5. Product development and product planning are often used interchanged but they are differing each other.
True/False

Answer:

1. True 2. False
3. True 4. True
5. True

LESSON - IX ADVERTISING RESEARCH

STRUCTRUE

9.0 Introduction

9.1 Unit Objectives

9.2 Meaning of Advertising Research

9.3 Definition of Advertising Research

9.4 Need for advertising Research

9.5 Classification of Advertising Research

9.6 Problems of Advertising Reasearch

9.7 Key Terms

9.8 Summary

9.9 Model Questions

9.0. INTRODUCTION:

The ever increasing gap between the quantum of production and consumption of goods and services has given birth to today's vast market. The markets are scattered all over the world. The long distance between the manufacturer and the consumers are shortened through impersonal selling namely advertising media. Advertising has become an integral part of modern economic life. Huge amount of money is spent by various organisations in persuading people to but goods and services of all kinds.

9.1 UNIT OBJECTIVES

After reading this unit you should be able to understand

* Meaning of Advertising Research
* Definition of Advertising Research
* Need for advertising Research

* Classification of Advertising Research
* Problems of Advertising Reasearch

9.2. MEANING OF ADVERTISING RESEARCH:

Advertisting research is concerned with the objective evaluation of advertising as a method of communication and persuasion. It is an application of marketing research aimed at the measurement of advertising effectiveness and its efficiency. The ultimate goal in advertising research is to measure advertising impact on sales of goods or services.

9.3. DEFINITION OF ADVERTISING RESEARCH:

The advertising research is an application of marketing research aimed at the measurment of advertising effectiveness (how well an advertisement or advertising campaign accompolishes its objectives) and amerliorate advertising efficiency (the most optimum use of the advertising budget and media in implementing an advertising campaign).

The aim of advertisement is to sell an idea, goods or services whereas the ultimate goal in advertising research is to measure advertising impact on sale of that goods or services.

9.4. NEED FOR ADVERTISING RESEARCH

Many number of people are depending on the income earned from this advertising area. The parties getting profit out of these area are the advertising agency, the media that carry the advertisement, and the advertiser who sponsors the advertisement. The interest or objectives of them are conflicting in nature. But their interest are common in one aspect i.e. the effectiveness of the advertisement. Each of the parties will be benefited when the advertisement become effective.

Advertising research is essential because huge amount are spent on advertisement. Advertising research reveals that the amount spent resulted in increase in sales and profits. In the absence of research one may not know the increase in sales is due to advertisement or any other factors. So every organisation

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should know the importance of advertising and measure its effectiveness. They should also understand the relationship among the cost, sales and profit to plan their future expenditure.

9.5. CLASSIFICATION OF ADVERTISING RESEARCH:

Advertising research can be classified into four as follows:

A. Product appeal research

B. Advertising message research

C. Media selection research

D. Advertising effectiveness research

A. Product Appeal Research:

In this research advertising objectives are framed in terms awarness changing attitudes, changing predispositions to buy or some combination of three. Basically it relates to study of consumer behaviour i.e. changing consumer attitudes with respect to selected product characteristics.

Attitudes are assumed as the predictors of human behaviour. Consumers are believed to have stable sets of attitudes which can be changed by advetising (or) appeals. There are always some forces at work to change the attitude of individuals.

Assumptions are some 'frame of reference' formed out of information gathered from their experience. If something fits in their 'frame of reference' it is accepted otherwise rejected. (e.g.) for some consumers price may be the index of the quality i.e.higer the price higher the quality and vice versa. Assumptions and beliefs are closely related to attitude. An advertiser should have knowledge of assumptions and beliefs held by consumers.

Generally an average consumer has a resonably stable set of attitudes towards salient product characteristics pertaining to a product class. Different segment of consumer have different perception of salient characteristics of a product. Once the salient features are ascertained product appeal will be designed, in order to change the unfavourable attitude into favourable ones. One need not criticise the competitors brand, instead may highlight good qualities of one's own brand.

For example in case of two wheeler the salient feature can be listed as follo

- Fuel economy
- Cost of the vehicle
- Bearing weight of fat man
- Speed
- Brake, shock observer system
- Appearance

The old generation may emphasis on brake system, fuel economy, cost etc. Younger generation way give emphasis on appearance, speed etc. So advertising appeal may be designed according to the attitude of each segment.

Thus this research measure the attitude of target audience, design the appeal to suit them and measure the impact of advertisement in changing their attuides.

B. Advertising Message Research :

It is also termed as copy testing. The main purpose of copy testing is to appraise the alternative ways to present the advertising message. the alternative can be in terms of appeal, size, colour, illustration layout frequency or repetition, seasonably etc. It focuses on the ability of advertisement to achieve impact and to project the desired message. Information regading attitudes awareness and perception of consumers regarding the product characteristics can be useful guide for providing effective message formation. Two types of measurements can be planned through copy testing.

a) Communication effect of the advertisement i.e. the degree to which the advertisement conveys the meaning to the consumer.

b) Sale effect of advertisement i.e the impact of the effect of advertisement capable to motivate the consumer to purchase / repurchase the product.

Copy testing are conducted in two situations :

a) Before testing or pretesting

b) After testing or post testing

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1. Pretesting / Before test :

The objective of such research is to make modification and improvements if any, in the advertising copy prior to the full run release of advertisement. Following are the main test conducted in pre-testing.

i) Consumer jury tests

ii) Laboratory tests

iii) Portfolio test

iv) Stimulated sales test and

v) Inquiries

i) Consumer jury test :

Here a jury composed of twelve to several hundred hypothetical consumer is asked to evaluate the advertisement in question in comparision with other advertisement. The test may be conducted a) by jury members individually or collectively b) at respondent's home or in some laboratory. the members are asked to rank the advertisements in an order.

a) Order of merit :

The advertisements are ranked according to the preference of the members of jury.

b) Paired comparision :

Here two advertisements are compared at a time by the jury. The record is maintained on a separate card. Scores recorded on the card are summed up after all comparisons are made. The advertisement having maximum score is the winner.

II) Laboratory test :

These test measure the respondnets physiological reaction to an advertisement by using eye camera. Psycho galvanometer and percepto scope.

a) Eye camera :

It measures both the horizontal and vertical movements of eye. It also observes minutely when the respondent eye is focussed on the advertisement. Vertical movement shows favourable and horizontal movement shows unfavourable attitude towards advertisement. However the result is not guaranteed and dialation of eye may be due to some other factor also.

b) Psycho galvanometer :

It measures galvanic skin responses to advertisement. These responses can be perspiration shows reaction to advertisement.

c) Perceptoscope :

It measures respondents aroused interest in particular advertisements. This record changes in pupil's dilation. Expansion shows favour and contradiction disfavour.

Laboratory tests are conducted by experts. However qualitative data collected under it create problem and interpretations.

iii) Port folio test :

In this method a number of dummy, ads are put in a folio along with the ad to be tested. The folio is given to select consumers and asked to go through it. Then the consumers are asked to recall the ads. The ad about which more informations are recalled is said to be best. This type of test provides a measure of selective exposure selective perception and selective retention. By this the anlyst can determine what filters through the consumers predispositions and what way it is altered in the process. This method is simple quick and economical. The media of the test can be T.V. or Radio.

iv) Stimulates Sales Test :

This test exposes the consumers to alternative copies of the ad through the point of purchase displays or direct mail. One copy is displayed in one purchase

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point and another copy in some other point of purchase. Now the sales in that two purchase points are compared. More sales in a point denotes the ad copy in that point is best than the other. Like that different copies are mailed to different consumers and response in terms of sales are measured. Copy which gained more sale is said to be best copy. The method is simple and enconomical. However sale in one point can not ensure sale in all the points when it is actually relased in media.

V. Inquiries :

Inquiry refer to the number of enquiries on advertisement is able to attract after it is run on an experimental basis. The number of inquiries coming in respose to these ads are measured. The ad with highest number inquires shows the maximum attractive strength. This method is very quick and systematic by all the people making inquires need not be potential consumer of the product advertised. This method is expensive and lot of precauations are necessary in designing the ads.

2) After test or post testing :

The pre testing of ads is not an established science of great precision. Hence further testing of ad is needed. After test is a test of total effectiveness. These tests are based on respondents memory and also on the principle that learning generally increases with repeated exposure. Post test techniques can be divided into two categories

a) Penetrations test

b) Progress test

a) Pentetration Test :

It tries to find the extent to which a brand has penetrated. In the mind after seeing the ad. It is otherwise called readership / starch advertising readership rating test. In this test the readers are categorised in three categories on the basis of the claim made by them namely (1) N : the percentage of readers having seen the ad 2) seen associated the percentage of readers associated with ad with the product or advertiser and 3) read most (RM) the percentage of records having read over half ad. Then one can calculate the following measure

$$\text{Reader per rupee} = \frac{\text{Percent noted x Magazine primary reader}}{\text{Space test}}$$

These tests are simple and economical and can measure reader's interest and awarness of ad. But reader must have seen many ads and magazines than what they actually claim. No reader can also claim readership and the respondents may confuse the specific ads with similar or identical ads seen elsewhere.

Penetration test in the form of recall test can be conducted in three different ways.

a) Unaided recall - the respondent is not helped in any way in recalling the ad.

b) Aided recall - in this test the respondent is given some clues for recalling the ad.

c) Trible associate test - where the respondent is asked to recall the ad and associate that with the product brand name and copy them. The trible associate test measures the awareness about the product ceated by the ad.

Recall test are simple economical and easy to conduct. Recall test measure tha to what extent the ad has penetrated (its ability to communicate) in the minds of a consumer. However a high recall does not mean that the respondent will buty the product. Attractive presentation would have made him to recall. So these test have limited value measuring the effectiveness.

b) Progress test :

These tests are designated to measure various stages of buyer awareness preference intention to buy and purchase in relation to effectiveness of ad i.e. advertising effectiveness is measured in terms of sales. So it also called as sales effect test. The awareness test tries to measure the informative value received by the customer from the ad and the impact it has caused in his mind with respect to the product purchase. The effective index is

$$= \frac{P_2 - P_1}{100 - P}$$

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where P1 is the initial percentage choice and P2 is the final percentage choice.

This test is simple and easy to execute at minimum cost. Effectiveness is measured immediately at one particular spot and hence results are not influenced by other factors. However awareness and preferenec may be there but they need not lead to actual sales. The consumer is asked immediately after showing the advertisement, he may be blased as he does not get time to think as in usual practice.

c) Intend to buy test :

In this test consumers are aksed about the influence of ad on their buying intentions, and they are asked to spot the weakness to improve them.

Though this test is simple, the consumers may be blased in their assignment.

d) Sales result test :

It measures the advertisement effectiveness in terms of increase in sales. A manufacturer has to choose two similar markets and treat one as test market and other as control market. He has to make changes in advertisement expenses in test market and kept a constant in control market. He should compare the results of sales in both market. It will reveal the effectiveness by increasing sales. The least square analysis can also be used to find a relationship between the past ad expense and sales of previous year and sales for current year can be predicted. This is called historical approach of measuring sales effect of an ad.

This test exhibits the sales response function in different type of territories and the best way to measure the advertisements effectiveness. However finding two similar market for test is difficult. Moreover apart from advertisment other factors such as competitor's strategy, product quality, after sales service etc. may also affect the sales.

C) Media Selection Research :

The character of media vehicle also influence advertising effectiveness. The media research is concerned with measurement of the size and composition of individual vehicle audience. This involves a thorough and careful investigation of

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media and selecting the most appropriate one for the advertising campaign. It attempts to eliminate waste in advertising by objectively analysing th media available for promoting products and services.

The media vehicle operate at six levels to contribute to the effectiveness of the advertiage. They are a) vehicle distribution b) vehicle exposure c) advertising exposure d) advertisement perception e) advertisement communiation e) sales response and cost per exposure.

The factors influencing the choice of media are a) Number of readers b) Viewers or listeners and c) propect or non prospect buyer. Points to be considered in media selection are as follows :

a) Choice of single media or combination of medias.

b) Selection of local, regional or national level coverage

c) Periodicity of lvel of the media

1. Print Media Research :

Newspaper and magazines are heavily dependent upon advertising revenue when the circulation is more the advertising rate is also high. A better way to measure a publications real distribution impact is through measuring its readership or total aduience.

Media buyers need accurate, circulation and readership figure to compare costs among various publications that reach similar audiences. Formula used for them are

For magazing

$$\text{Cost per page per thousand circulation} = \frac{\text{Page rate x 1000}}{\text{Circulation}}$$

For Newspaper

$$\text{Cost per line per million circulation} = \frac{\text{10,00,000 x Line rate}}{\text{Circulation}}$$

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Readershsip survey is also essential to discover 'who' reads 'what', 'who' refers to sex, age, social class, martial status, place of residence etc.

2) Radio and Television Media Research :

Several people may listen to single radio or watch on T.V. set at the same time or for varying length of time. So it is difficult to measure size of audience. Such media have no visible trace that they been received. There are four methods to measure the size of audience.

i) Co incidental method :

A random sample of home is selected and telephone interviews are conducted during broadcasting hours, to know that Radio / T.V. programmes are listened / viewed. Respondents are asked about the name of the sponsor or product being advertised. The rating are based on the percentage of radio / T.V. hours turned to a particular programme. The method is quick and economic but is restricted to homes having telephones.

ii) Roaster - recall method :

It incorporates a form of an aided - recall method in personal interviews. The respondents are shown a roaster or list of programmes transmitted on previous day and the interviewer verfies whether the respondent has seen / heard it or not. But the success of this method depends on the respondent memory.

iii) Audio meter :

An audio meter is attached to TV / radio set in a random sample of homes. Audio meter measures accurately the sets using station on which tuned. It does not indicate who is watching or listening the transmission.

iv) Diary method :

The respondents are supplied with the diaries and are asked to record what they watched or listened in T.V. or radio set.

D) Advertising effectiveness Research :

This research is concerened with analysing different media and evaluating

the degree of success with which the advertising objectives have been achieved. Rate of growth of sales of a product brand increase in market share greater awareness of the company etc. are few criteria to measure effectiveness.

Following are the techniques of measuring advertising effectiveness.

Coupon research :

The most direct way of evaluating an advertising compaign and checking the suitability of the media occurs in mail order trading from which coupon research originated. To attract inquiries some interesting offer is made .the replies are analysed on a cost per enquiry basis and the effectiveness of differenct publication evaluated.

'Split run' test featuring different styles of advertisements for the same product can be inserted in the same edition of a publication and an evaluation made of their relative appeal.

Many consumer and technical magazines run a reader service which simplifies the task of their readers when asking for information from advertiser.

9.6 PROBLEMS OF ADVERTISING RESEARCH :

The following are the problems generally experienced in organising advertiisng research programme.

Advertising research is effected by time and cost factors. Its results are time consuming involving huge expenditure.

2. There is inherent weakness in research methodology and interpretation procedure in advertising research. The research methods are too much subjective and are liable to be misinterpreted and misrepresented.

3. Effect of ad on the sale is diffucult to measure because other factors influencing sales can not be kept constant.

Thus lot of work is to be done on development of advertising research methodology.

NOTE :

9.5. CLASSIFICATION OF ADVERTISING RESEARCH:

A. Product appeal research,
B. Advertising message research,
1. Pretesting / Before tests :
i) Consumer jury tests
ii) Laboratory tests
iii) Portfolio tes
iv) Stimulated sales test and v) Inquirie
C. Media selection research,
1. Print Media Research,
2) Radio and Television Media Researc
D. Advertising effectiveness research

NOTES

Unit - IX
True or False
1. Advertising research is concerned with the objective evaluation of advertising as a method of communication persuasion.
True/False
2. A product is anything that cannot be offered to a market after attention, acquistion, use or consumption that might satisfy a want or need.
True/False
3. Advertising research is essential because huge amount are spent on advertisement.
True/False
4. Attitude are assumed as the predictors of human behaviou.
True/False
5. In this method the market potential for a product in an area is not determined taking into account multiple factor influences the sales at a product.
True/False

Answer:
1. True 2. True
3. True 4. True
5. False

9.7 KEY TERMS

* Advertising
* Pre-testing
* Brand
* Media
* Effectiveness

9.8 SUMMARY

Meaning of Advertising Research, Definition of Advertising Research, Need for advertising Research, Classification of Advertising Research. Problems of Advertising Reasearch are dealt in details in this unit.

9.9 MODEL QUESTIONS :

Part - A

1. What is advertising message research?
2. What is pre-testing and post-testing in advertising research?
3. Highlight various aspects of media selection research
4. Explain various steps you taken in brand image studies

Part - B

1. What is advertising research? What areas are covered in it?
2. What is advertising copy research? What alternative methods are avilable for presting of an advertising copy?
3. What is advertising research? Explain the methods of i) media research and ii) advertising effectiveness research.
4. Write note an advertising effectiveness research

UNIT X SALES CONTROL RESEARCH

STRUCTURE

10.0 Introduction

10.1 Introduction

10.2 Sales Forecasting

10.3 Sales Analysis

10.4 Sales Potential / Market Analysis

10.5 Key Terms

10.6 Summary

10.7 Model Questions

10.0 INTRODUCTION

Marketing management depends on sales control research for formulating marketing policies planning and controlling marketing operations. Sales control research can be descriped as the identification and measurement of all those variables which individually and in combination have effect on sales. It includes marketing studies pertaining sales forecasting market potentials, market share analysis, determination of market characteristics and sales analysis. The major activities carried under sales continue research are sales forecasting, establishment of sales quota and assigning of sales territories and study of sales potential.

10.1 UNIT OBJECTIVES

After you reading this unit you should be able to understand

* Sales Forecasting
* Sales Analysis
* Sales Potential / Market Analysis

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10.2 SALES FORECASTING :

Sales forecasting means the prediction of sales of a particular product, company, branch office or other unit for a given period of time. Important decisions of the business such as production and inventory scheduling, planning for plant and equipment investment, manpower requirements, raw material purchases advertising outlays sales force expenditure, and cash flow needs are dependent on the sales forecost.

1) Methods of sales forecasting :

Sales in the future are forecasted by using any one of the following methods

a) Jury of executive opinion method :

This is the historical and the simple method of making sales forecast. The views and opinions expressed by the executives are combined. More emphasis on the judgemnet infomed estimates, branches and guess work of experts are taken. In most cases the final estimate is the opinion of the top level managers. The chief executives of the company may consider the various estimates and make a final decision. A round table discussion with a brain storming session may lead to reconcillation of estimates.

It is simple and easy to understand. Indirectly the persons behind the forecast are responsible for its achievement also. But the forecasts are based on opinions rather than on facts and figures and hence not advisable.

b) Sales composite method :

It is otherwise called sales force estimated. Sales forecast are made on the basis of estimates of the salesman, sales representative etc. The opinions of the sales force who are in the marketing field are combined with the opinion of sales manages and thereby sales forecasts are made. The merits of this methods are.

1) Sales force have close contact and forecast on the basis of their opinion is realistic.

2) The sales force will feel that they take part in management and it iproves relationship of management and work force. However there are certain draw backs in this method.

1) Sales persons may underestimate the sale because after the quota is fixed to them they can get commission for excess sales.

2) Management take a part of the time of sales force for these forecast.

3) Generally they could predict only current conditions and no scope for long range forecast.

C. Users Expectation Method:

In this metehod is suitable in industrial marketing since the number of customers are limited. Opinion of the customers regarding their future purchase, manfacturer, products are collected and forecasts are made on that basis. The drawback of this method is that it is not suitable for consumer goods since consumers are larger in number. Secondly their expectations are not accurate.

D. Statistical method

In this method various statistical tools and techniques are used to forecast. Important techniques are

i) Time series analysis, based on past

ii) Correlation analysis - finding correlation between sales and other factors.

iii) Mathematical formula: Formulae are evolved to depict the relationship of number of variables to the company sales.

Concerning the reliability statistical methods are good for sales forecasting. But they require eleborate reserach which is costly. Moreover the predictions are based on past facts and they do not reflect the future.

E. Combination method

It is nothing but combination of two or more above methods. For example

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an initial forecast will be made by the sales people and later on improve i by using statistical method.

2) Limitations of sales forecast:

Sales forecast are unrealistic due to the following reasons

1. Changes in fashion
2. Non availability of past history of a product
3. Changes in technology
4. Govt. intervention
5. Changes in the pattern of consumer behaviour

10.3 SALES ANALYSIS:

Analysis of sales record refers to sales analysis. Sales analysi involves measurement of sales, sales possibilities experience for product lines different market segments. They ae used for control and reappraisal purposes Sales analysis usually ae made on the basis of territory product customer and order size.

1) Objectives of Sales analysis:

The objectives of the sales analysis are as follows:

a) to find the strength and weakness of the products, the products which leads to the greatest volume and the least volumes.

b) the customer who finish the most productive sales result and

c) the size of order which accounts

2) Objectives of sales analysis:

The objectives of the sales analysis are as follows:

a) to find the strength and weakness of the products, the products which leads to the greatest volume and the least volumes.

b) the customer who finish the most productive sales result and

c) the size of order which accounts for the majority of the firms business. Such information enables a company to concentrate its sales efforts where they can bring the greatest return.

a) Bases of Sales Analysis:

a) Sales analysis by territory: As discussed earlier sales analysis are based on the sales records. Here the invoice is used as a record for the analysis of sales by territory. The follwing data are taken from the records.

1) Customer's name
2) Customer's location
3) Products sold
4) Quantity of each item sold
5) Price per unit
6) Total value of sales per product and
7) Total amount of order for the product.

In this analysis the geographical control unit to be used is decided. Geographical area are divided by sales wise, districwisea, taluk wise as the case may be. Suppose is it is divided districtwise data in this district are collected and analysed. Comparison of previous period sales and current period are compared. Area where sales are declined are taken out and the reason for decrease in sales are analysed. Then the remedial measure to increase the sales in that territory are taken.

b) Sales analysis by Product:

Frequently a company's products line grows over a period of time with relatively little overall planning. Consequently a product line may fetch a good sale where another product lines sales may be declining. Now the data regarding sale of each product are obtained. The sales of one product line is compared with the potential. If the sales is more, measures to exploit the potentiality further should be taken. If the sales records shows lesser, sales compared to the potentiablitiy the reasons for the same should be found out.

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Product analysis may be effective when combined with territory analysis. Becauses the territory sales in general may exceed quota but one or few product may show lesser sales in that area itself. By concentrating to increase the sale of their product, sales in total may be increased further. Analysis of this type can help in spotting sales area and products in a particular area.

C) Sales analysis by customer:

Here sales analysis is classified on the basis of customers. Sometimes, a small number of customers may account for a larger amount of sales in a particular area. Then it is profitable to keep such customer to increase sales further. However the cost and profit analysis of supplying goods to those customers should be analysed. If it is unfavourable, then they should be dropped.

D) Distribution cost analysis:

This typye of analysis synthesis the various piece or parts of the sales analysis programme as discussed above. It is a technique used by individual business concern for the a) determination of the cost of performing specific marketing activities and b) the determination of costs and profits for various segments of the business such as products or product group customers or unit of sale etc.

E) Sales analysis by size of order:

Sales analysis by size of order may be helpful in finding points of good sales volume with low profit. Sales are classified by size of the order on which they originated. The cost of handing over an order is analysed. It makes possible to know the sales which are being made at loss. The analysis may lead to actions such as setting a minimum order size, training salesman to pick up larger order and to drop certain product, area or customer.

10.4 SALES POTENTIAL/MARKET ANALYSIS:

Sales potential analysis is termed as marked analysis. The dictionary meaning of potential is existing in possibility and capable of development into actuality market potential typically refers to total sales possibility. Several different potential may be considered depending on what condition are stated. For example potential

for sale tooth paste depends on the condition that the number times a consumer brush his teeth. Therefore potential carries meaning when the condition is stated.

1) Major uses of sales potential

Sales potential can be put to several applications in the field of marketing management. There are six main uses of sales potential as given below:

a) Defining the sales territories.

b) Allocation of funds for sales efforts.

c) Setting the sales quotas

d) Designing the distribution channel

e) Deciding the location and size of the plants new sales offices and ware houses

f) Determining the strategy for market entry.

a) Defining and assigning sales territories:

Defining and assigning of sales territories ae based estimating of sales potential. If a territory has more potential a salesman may not able to manage it and consequently sales may be lost. So care must be taken in defining and assignig area to the salesman. While defining and assigning sales potential the following facts are considered a) travel distance b) average size of order c) number of customers d) the product line and its nature and e) nature of competition. Like that salesmar appraisal can be carried out effectively. the elimination of weak area and concentra tion of stronger one increase sales and at the same time reduce the cost.

2) Allocation of Funds of sales efforts:

Potential is also useful in allocatinig sales force to each territory. Territory with high potential may be allocated with more persons and vice versa. Likewise while allocating funds for making sales efforts, sales potential is considered as the basis. Funds for sales force advertising and sales promotion and publicity should be allocated only after consideration of potential.

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10.3 SALES ANALYSIS:

1) Objectives of Sales analysis,
2) Objectives of sales analysis,
a) Bases of Sales Analysis,
b) Sales analysis by Product,
C) Sales analysis by customer,
D) Distribution cost analysis,
E) Sales analysis by size of order

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However sales potential is not the only criteria for allocating sales efforts. Factors like competitors products, substitutes, firms ability to exploit the market etc. also affect the allocation. Moreover company's past experience managerial ability, finance availability also plays role in the allocation.

a) Setting sales quota:

There is a need to set sales quota to each of the sales territory. Estimate of sales potential, competition structure, sales performacne in the past, market share of the company are criteria to be considered while setting the sales quota to the salesman. The sales quota may very from area to area. Sales quota on the basis of the sales potential is a better basis for setting.

b) Designing the distribution channel:

Sales potential helps the designing the distribution channel for different territories. More middlemen are need in the territory with large potential. In case where the potential is limited we may resort to direct selling or keep a very limited middlemen.

c) Deciding the new plant location and size:

Sales potential helps a manufacturer to decide the size of production as well location of new plant i.e. whether to locate in the area where the potential is more to reduce distribution cost or to locate at the central place covering all the market.

d) Strategy for market entry:

Knowledge of market potential helps to decide the market entry time and positioning of product in comparison with the competitors.

3) Methods for developing market potential:

Market potentials are estimated by following two methods. They are a)Direct data method and b) Corollary data method.

a) Direct data method:

In this method, the proportion of company's potentiality and actual sales made are compared with total industry market in every territory.

In this method the territorial totals are expressed as percentages of the industry sales for the total market covered by the firm. These potentials are considered as the measure of the relative potential present in such market. The percentages to the firms estimate of total sales to arrive at a potential figure of each market. It can be illustrated as follows:

Company Sales Ferrtory Market	Total Industry Sales		Company's Potertial	Actual Company Sales
	Volume (Rs)	% of Total Indian		
Madras	10,00,000	10%	2,50,000	2,00,000
Bombay	40,00,000	40%	4,00,000.	3,00,000
Delhi	25,00,000	25%	6,00,000	6,50,000
Kalkatta	25,00,000	25%	11,00,000	13,00,000

The table shows that companys sales are strong in Delhi and Kolkotta and are weak in Madras and Bombay.

The data regarding total industry can be obtained from the govt agencies or trade associations etc.

The drawback of these methods are the non availability of data for total industry, and if available it is difficult to get territory wise. Past performance are given consideration and not current data.

b) Corrolary data method:

The corrolary data mathod is based on the data that if a given series is related to another or to a group, the second series may be used as measurement of distribution of the first. There are two types of factor indexes are adopted.

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10.4 SALES POTENTIAL/MARKET ANALYSIS:
1) Major uses of sales potential,
2) Allocation of Funds of sales efforts,
a) Setting sales quota,
b) Designing the distribution channel,
c) Deciding the new plant location and size,
d) Strategy for market entry
3) Methods for developing market potential:
a) Direct data method,
b) Corrolary data method

i) Single factor index:

Demand for a product influence the demand for another product. For example increase in sales of cars simultaneously increase sales of spare parts i.e. demand for an item is derived from another item or the demand for the item is complementary. In the above example the potential of spare parts are determined by a factor name demand for cars. Likewise increase in households in an area have direct relation with the sales in that area.

The main drawback of this method is that it is difficult to establish the relationship between the index series and the product at. Hence it is necessary to compare two series over a period of time.

ii) Multiple factor index:

Generally the market potentials are not designed from a single series. Many of them are developed by combining various factors to determine market potential There are two types of indexes are included in this category.

a) Special multiple factor index:

In this method the market potential for a product in an area is deteminec taking into account multiple factor influences the sales of a product. In this type, then research choose few factors for determing the potential. This is the main drawback of this method. Because while choosing the factors there may be wrong in their judgement and it is subjective.

b)General multiple factor index:

This type, general factors, such as income, population, retail sales in that area etc. are few factors considered for estimating the potential. Each factor is given weight according to the situation and area. Here the assumptionis the market potential in given market is same for all consumer.

10.5 KEY TERMS

- Application
- Analysis

* Procedure

* Forecasting

10.6 SUMMARY

Sales Forecasting, Sales Analysis, Sales Potential / Market Analysis are dealt in details in this unit.

10.7 MODEL QUESTIONS:

Part - A

1. Define sales forecasting?

2. Differentiate between sales analysis and market analysis.

Part - B

1. What do you understand by the term sales control research? Why it is necessary?

2. Describe the procedure of sales analysis as an application of marketing research.

3. Describe various methods to forecast sales of a company products.

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Unit - X
True or False

1. Marketing management depends on sales control research for formulating.
True/False
2. A product is anything that cannot be offered to a market after attention, acquistion, use or consumption that might satisfy a want or need.
True/False
3. Opinion of the customers regarding their future purchase, manufactures products are collected and forecosts are made on that basis.
True/False
4. Analysis of sales record refers to sales analysis.
True/False
5. Sales potential analysis is termed as market analysis.
True/False

Answer:
1. True 2. True
3. True 4. True
5. True